

Supervisor Enterprise Edition

Installation Manual Heat-Tracing Controller Configuration and Monitoring Software

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1.1 WELCOME

The nVent RAYCHEM Supervisor heat-tracing controller configuration and monitoring software provides a graphical user interface for RAYCHEM communications and controller products. The software supports Elexant Series controller, the NGC series controllers, 780 Series/GCC-9000 Group Communications Controllers, RAYCHEM T2000 AC 2000+ alarm/communications interface cards, RAYCHEM 910/915/920 Heat Trace Controllers and/or legacy RAYCHEM Controllers (except the RAYCHEM 200N) using the Modbus[®] protocol.

The software allows the user to configure and monitor any RAYCHEM controller which has the appropriate communications interface installed from one central location. The software also incorporates advanced features such as data logging and trending, batch and recipe processing, scheduled events, etc.

Please refer to the RAYCHEM Supervisor Operations Manual (H57576) for more information on features and capabilities.

1.2 VITAL INFORMATION



Important: All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their particular application. nVent makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use.

nVent's only obligations are those in the nVent Standard Terms and Conditions of Sale for this product, and in no case will nVent or its distributors be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of the product. Specifications are subject to change without notice. In addition, nVent reserves the right to make changes—without notification to Buyer—to processing or materials that do not affect compliance with any applicable specification.

1.3 USER RESPONSIBILITIES

The performance, reliability and safety of your heat-tracing system depend on proper design, selection and installation. The RAYCHEM Supervisor program will help you configure and monitor a system that meets your requirements, but it is only a tool. It assumes that your input is accurate, that you are familiar with heat-tracing system design and configuration, and that you will ensure that all components of the heat-tracing system are installed, maintained and used as intended. The configuration of the RAYCHEM Supervisor program should be reviewed by a knowledgeable engineer to ensure it is appropriate for your application. Additional information relating to safety, design and installation is contained in Design Guides, Installation Manuals, Data Sheets, and other literature available from nVent. Be sure to consult these documents as needed.

1.4 SAFETY WARNINGS

There are important safety warnings shipped with our products and printed in our literature. Be sure to read and follow them to reduce the risk of fire, shock or personal injury. If you have any questions, contact your local Representative or nVent directly.

1.5 TECHNICAL SUPPORT

In North America, contact directly at:

nVent Thermal Management

7433 Harwin Drive Houston, TX 77036 Tel: 800-545-6258 Tel: 650-216-1526 Fax: 800-527-5703 Fax: 650-474-7711 email: Thermal.TechSupport@nvent.com nVent Thermal Management at: Europe, Middle East, Africa nVent Thermal Management Romeinse straat 14 3001 Leuven Belgium / België / Belgique Tel: +32 16 213 511 Fax: +32 16 213 603

Or for other parts of the world, contact

The software allows the user to configure and monitor any RAYCHEM controller installed in the field which has the appropriate communications interface installed from one central location. The software also supports alarm monitoring, with the ability to acknowledge and clear alarms.

2.1 SYSTEM REQUIREMENTS

The nVent RAYCHEM Supervisor Enterprise software is designed to run in a networked environment using one or more computers. The software is composed of three components, and it is assumed that all computers are networked together on a corporate intranet. Implementation details of this type of networking environment are beyond the scope of this document. The three components of the software are:

- nVent RAYCHEM Supervisor Master Server
- nVent RAYCHEM Supervisor Slave Server
- nVent RAYCHEM Supervisor Client

The nVent RAYCHEM Supervisor Master Server and nVent RAYCHEM Supervisor Slave Server applications must be installed and run on separate computers. nVent RAYCHEM Supervisor Slave Servers are optional; however you may add new nVent RAYCHEM Supervisor Slave Servers to your EHT system as required. Using nVent RAYCHEM Supervisor Slave Servers allows your EHT system to distribute the communications workload. For example, instead of one computer providing the monitoring for all devices in your system, one or more slave servers can be configured to monitor for alarms at the same time.

The nVent RAYCHEM Supervisor Client provides the user interface and can be installed on any computers that require user interaction with the system. Once the nVent RAYCHEM Supervisor Master Server, nVent RAYCHEM Supervisor Slave Server(s) and nVent RAYCHEM Supervisor Client(s) are installed, multiple users can access the nVent RAYCHEM Supervisor EHT system from different client computers simultaneously.

The computer hardware required to run nVent RAYCHEM Supervisor Master Server, nVent RAYCHEM Supervisor Slave Server and nVent RAYCHEM Supervisor Client are outlined in the following sections.

2.1.1 TYPICAL SYSTEM ARCHITECTURES

While many RAYCHEM Supervisor system architectures are possible, they will generally fall into one of three types, and these in turn will use either SQL Express or SQL Server for their databases. This installation manual discusses the RAYCHEM Supervisor Enterprise installation only, which uses SQL Server. For RAYCHEM Supervisor installation which uses SQL Express, refer to the Installation Manual for RAYCHEM Supervisor Standard (H57988).

 Single Master Server, no Slave Servers, Single User (Client). This type of installation will typically use the SQL Express database ("Standard") version of RAYCHEM Supervisor.



Figure 2.1.1 Typical single master, single client system

 Single Master Server, no Slave Servers, Multiple Users (Clients). This architecture may be SQL EXPRESS -based as long the number of simultaneous users is limited to a maximum of four. Due to SQL EXPRESS database limitations, no performance guarantees can be made in all situations with this many Users. For example, if several data trending or batch jobs are being run simultaneously, only one or two Users may be able to connect without impacting system performance. Applications that require more Users or the ability to have a larger number of batch/trending/configuration jobs must use the SQL-based Enterprise version of RAYCHEM Supervisor.



Figure 2.1.2 Typical single master, multiple client system

Single Master Server, one or more Slave Servers, Multiple Users (Clients). This topology represents
the largest system type, where multiple computers are used to distribute the communications and
processing workload. This type of installation will always use the SQL-based Enterprise version of
RAYCHEM Supervisor and will support a large number of simultaneous Users and data processing
jobs.



Figure 2.1.3 Typical single master, multi-slave server, multiple client system

2.1.2 RAYCHEM SUPERVISOR MASTER SERVER

To effectively use the software, the following configuration is required:

- A Quad core© 2.0 GHz or faster (Recommended), Pentium©4 1 GHz (Minimum) computer. Large systems using multiple Slave Servers should consider the use of a higher speed/ multiple processor Master Server computer for best performance. Consult nVent Applications Engineering for guidance
- A hard disk with at least 4 gigabytes of free space (Recommended), 2 gigabytes (Minimum)
- 8 gigabytes of RAM (Recommended), 1 gigabyte of RAM (Minimum)
- · One or more available serial ports
- A mouse or other compatible pointing device
- SVGA display with 800x600 resolution
- Standard configurations using Microsoft SQL Express: Windows® XP Pro SP3, Windows Vista, Windows 7, Windows 8 or Windows 10, either 32 or 64 bit
- Multi-User/Server Capable configurations using MS SQL Server: Microsoft Windows® Server 2000 through 2017
- Microsoft .NET® Framework version 4.0
- Network connectivity

2.1.3 RAYCHEM SUPERVISOR SLAVE SERVER

The following configuration applies to optional Slave Server computer(s):

- A Quad core© 2.0 GHz or faster Recommended), Pentium©4 1 GHz (Minimum) computer. Large systems using multiple Slave Servers should consider the use of a higher speed/ multiple processor Master Server computer for best performance. Consult nVent Applications Engineering for guidance
- A hard disk with at least 4 gigabytes of free space (Recommended), 2 gigabytes (Minimum)
- 8 gigabytes of RAM (Recommended), 1 gigabyte of RAM (Minimum)
- · One or more available serial ports
- A mouse or other compatible pointing device
- SVGA display with 800x600 resolution
- Standard configurations using SQL EXPRESS : Windows XP SP3, Windows Vista SP1, Windows Server 2003 SP2, Windows Server 2008, Windows 7, 8 or 10
- Multi-User/Server Capable configurations using SQL Server: Windows Server 2003, 2008, 2012, 2014, 2016, or 2017, Windows Vista SP1, Windows 7, Windows 8, or Windows 10 on computer where the SQL Server is installed
- Microsoft .NET® Framework version 4.0
- Network connectivity

2.1.4 RAYCHEM SUPERVISOR CLIENT

The following configuration applies to Client computer(s):

- A Quad core© 1GHz or faster (Recommended), Pentium©4 1 GHz (Minimum) IBM compatible personal computer
- A hard disk with at least 1 gigabyte of free space Recommended), 500 megabytes (Minimum)
- 2 gigabytes of RAM (Recommended), 1 gigabyte of RAM (Minimum)
- One or more available serial ports
- A mouse or other compatible pointing device
- SVGA display with 800x600 resolution
- Windows XP SP3, Windows Server 2003, 2008, 2012, 2014, 2016, or 2017, Windows Vista SP1, Windows 7, Windows 8 or Windows 10
- Microsoft .NET Framework version 4.0
- Network connectivity

SECTION 3 - INSTALLING RAYCHEM SUPERVISOR

RAYCHEM Supervisor's installation wizard will install the RAYCHEM Supervisor software on your PC's hard disk drive. You must already have Windows XP, Windows Server 2003, 2008, 2012, 2014, or 2016, Windows Vista SP1, Windows 7, Windows 8 or Windows 10 installed on your computer. If you are using an SQL database version [RAYCHEM Supervisor Enterprise Edition], the computer on which the SQL Server is installed must have Windows Server 2003, 2008, 2012, 2014, or 2016, Windows Vista SP1, Windows 7, Windows 8 or Windows 10 pre-installed.



Note: To install Windows, follow the installation procedure provided by Microsoft. Familiarity with the Windows environment is highly recommended, and it is assumed throughout this manual. Knowledge of the Windows environment will make this program easier to use and understand.

If you are upgrading an existing RAYCHEM Supervisor installation which is version 1.30 or earlier, please refer to Section 15.3 "Converting RAYCHEM Supervisor Databases" in the RAYCHEM Supervisor Operations Manual (H57576) for information on how to convert your existing database.

Note: Components should be installed in the order in which they are presented in this document.

3.1 QUICK START GUIDE

The following provides a brief outline of the installation process for the Enterprise (SQL) version of RAYCHEM Supervisor. Detailed instructions may be found in each of the Sections that are referenced within the individual steps:

3.1.1 ENTERPRISE (SQL SERVER) RAYCHEM Supervisor INSTALLATIONS:

- 1. Setup the Master Computer:
 - A. Install the SQL Server (see Section 3.2, 3.4, 3.6, or 3.8).
 - B. Install the RAYCHEM Supervisor Master Server application (see Section 3.8).
 - C. (Optional but Recommended) Install the RAYCHEM Supervisor Client software if you want the user to be able to interact with the RAYCHEM system from the Master computer (see Section 3.8.8).
- 2. Setup any Slave Server Computers:
 - A. Install the RAYCHEM Supervisor Slave Server application (see Section 3.8.6).
 - B. (Optional) Install the RAYCHEM Supervisor Client software if you want the user to be able to interact with the RAYCHEM system from the Slave computer (see Section 3.8.8).
- 3. Setup any Client Computers:
 - A. Install the RAYCHEM Supervisor Client software (see Section 3.8.8).
- 4. Convert an existing database (optional):
 - A. If you are upgrading from a previous version of RAYCHEM Supervisor, PyroMaster, or TraceMaster software, you may import some of the system setup information into the new software (see Sections 15.3 through 15.4 of the RAYCHEM Supervisor Operations Manual (H57576) as appropriate).
- 5. Activate and Register your new software (see Section 4).

3.2 INSTALLING MICROSOFT SQL SERVER 2000

To install Microsoft SQL Server 2000, insert the "RAYCHEM Supervisor Disk 2 – Microsoft SQL Server 2000 Standard Edition" CD in your computer's CD-Rom drive. If the installation application does not start automatically, navigate to the CD-Rom drive (D:\ for example) and then double click on Autorun.exe.



Note: This section applies to RAYCHEM Supervisor Enterprise, version 2.1 and earlier. If you are installing version 2.2 or newer, you should refer to Section 3.6 of this guide.



Note: If you are upgrading from a standard (SQL EXPRESS) version of RAYCHEM Supervisor, be sure to follow the procedure in the SQL EXPRESS Installation manual to uninstall SQL EXPRESS first. Ensure that you have completed all of the steps or SQL Server may not install properly.

3.2.1 INSTALLING THE DATABASE SERVER COMPONENTS

Once the install screen is displayed, click on "SQL Server 2000 Components" and then select Install Database Server.



Figure 3.2.1 Install SQL Server 2000 components



Figure 3.2.2 Install database server

Follow the on screen instructions. When the "Computer Name" screen appears, select Local Computer and then click "Next".



Figure 3.2.3 Computer name

Choose Create a new instance of SQL Server, or install Client Tools in the "Installation Selection" window. Click on "Next."



Figure 3.2.4 Create a new instance

Continue following the on screen directions. When the "Installation Definition" screen appears, select Server and Client Tools and then click on "Next."



Figure 3.2.5 Install client and server tools

In the Instance Name screen, leave the installation type selection set to Default. Click on "Next."



Figure 3.2.6 Default installation

Choose the Typical setup and then click "Next."

Setup Type				×
Click the type of Set	up you prefer, then clic	k Next.		
• Typical	Installed with the mos	t common options	. Recommended f	or most users.
○ <u>M</u> inimum	Installed with minimum	n required options.		
○ <u>C</u> ustom	You may choose the advanced users.	options you want I	to install. Recomm	ended for
- Destination Folder				
Program Files	B <u>r</u> owse	C:\Program File:	s\Microsoft SQL S	erver
Data Files	Bro <u>w</u> se	C:\Program File:	s\Microsoft SQL S	erver
L			Required:	Available:
Space on program	files drive:		38205 K	14755888 K
Space on system d	lrive:		182917 K	14755888 K
Space on data files	s drive:		34432 K	14755888 K
	<u>H</u> elp	< <u>B</u> ack	<u>N</u> ext >	Cancel

Figure 3.2.7 Typical Setup

Next, choose Use the same account for each service, Auto start SQL Server Service and ensure the Service Settings are set to Use the Local System account. Then click on "Next."

Services Accounts		×
Use the same account for each same account for each same account for each same account for each same same same same same same same same	sh service. Auto start SQL	Server Service.
C Customize the settings for eac	h service.	
Services O SQL Server	Service Settings	em account
C SQL Server Agent	🔿 Use a Domain Usej	; account
	<u>U</u> sername:	Administrator
	Password:	
	<u>D</u> omain:	MASTERSVR-SQL1
	L Auto Start Service	
Help	< <u>B</u> ack	<u>N</u> ext > Cancel

Figure 3.2.8 Services accounts

In the Authentication Mode window, choose Windows Authentication Mode, and then click on "Next."

Authentication Mode	×
Choose the authentication mode.	
Windows Authentication Mode	
\bigcirc Mixed Mode (Windows Authentication and SQL Server Authentication)	
Add password for the sa login:	
Enter password:	
Confirm password:	
Blank Password (not recommended)	
Help < <u>B</u> ack <u>N</u> ext >	Cancel

Figure 3.2.9 Authentication mode

Continue following the on screen directions. When prompted to choose the Licensing Mode, select the Per Seat mode and enter the total number of devices for which you have purchased an SQL license.



Note: When purchased from nVent, copies of RAYCHEM Supervisor Enterprise include a SQL Server license and the appropriate number of SQL device (CALs) with the Supervisor software application. Simply add up the total number of Servers (Master+Slaves) and Users and enter this total into the devices box. For example, if you have purchased a package of RAYCHEM Supervisor software that includes (1) Master Server, (2) Slave Servers, and (5) Users, you would enter a total of 8 devices in the box.

Once you have done this, click on "Next."

Choose Li	icensing Mode	x
SQL Serv	ver 2000 supports two Client Licensing Modes	
	Per Seat - Each device that accesses Microsoft SQL Server 2000 requires a separate Client Access License.	
.	Processor License - Each processor on this server requires a separate Processor License.	
Please cli mode you	ick Help to fully understand the implications of the licensing a choose.	
_ Licensir	ng Mode	1
• Per	r <u>S</u> eat for 8 devices	
O <u>P</u> ro	ocessor License for	
	<u>C</u> ontinue <u>E</u> <u>x</u> it Setup <u>H</u> elp	

Figure 3.2.10 Licensing modes

Follow the on screen instructions until the installation is complete.

If your RAYCHEM Supervisor software package includes an additional CD labeled "RAYCHEM Supervisor Disk 3 – Microsoft SQL Server 2000 Service Pack 3a," insert this disk into the computer's CD-Rom drive. If the installation application does not start automatically, navigate to the CD-Rom drive (D:\ for example) and then double click on Setup.bat.

The Welcome screen will be displayed. Click on "Next" to continue.



Figure 3.2.11 Install SQL Server SP3

The program may display a license agreement. If you accept the terms of the agreement, press the Yes button and the installation will proceed. If you press the No button, the installation will terminate.

If you installed SQL Server by following the instructions earlier in this Section (see Figure 2-3-1-6), check the Default check box to select the instance name. If you have more than one instance of SQL Server installed on the computer, specify which instance to update by entering the instance name into the space provided. Click on "Next" to continue.

Instance Name		×
	Default To apply Service Pack to the default instance, check the Default box and click Next. To apply Service Pack to a named instance of SQL Server on this computer, clear the Default checkbox and type or select an instance name. A new name must be 16 characters or less and should start with a letter or other acceptable character. For more information, click Help. Instance name:	
	Help < <u>B</u> ack <u>Next</u> Cance	el

Figure 3.2.12 Select the instance name to update

Next, select how to connect to the SQL Server. Choose Windows Authentication and click on "Next."



Figure 3.2.13 Connect using Windows authentication

The installation program will attempt to authenticate the password. This may take a few minutes to complete. A Password Warning window may be displayed. Choose Ignore the security threat warning, leave password blank and click on "OK."

5A Password Warning	
Service pack setup has detected that your SA password is set to blank. It is highly recommended that you set a strong password and secure your database server, even if you are using Windows authentication.	Э
C I do not want a blank password, get password :	
Enter SA Password:	
Confirm SA Password:	
Ignore the security threat warning, leave the password blank.	
<u> </u>	

Figure 3.2.14 Leave SA password blank

When the SQL Server SP3 Setup window is displayed, check the Upgrade Microsoft Search and apply SQL Server 2000 SP3 box and click on "Continue."

SQL Server 2000 Service Pack 3 Setup	x
Backward Compatibility Checklist	
Verify the following SP3 security enhancements. Click Help for more information.	
Cross-database ownership chaining is turned off by default in SP3. After installation, you can enable cross-database ownership chaining for individual databases. If you must use cross-database ownership chaining, select the check box below.	
Enable cross-database ownership chaining for all databases (not recommended)	
SP3 will upgrade Microsoft Search service and automatically rebuild all full-text catalogs for all applications using the service. During the rebuild, full-text functionality may not be fully available. Select the check box below to continue upgrading to SP3.	
Upgrade Microsoft Search and apply SQL Server 2000 SP3 (required).	
Click Cancel to exit Setup without installing SP3.	
<u>H</u> elp Cancel	

Figure 3.2.15 Apply SQL Server 2000 SP3

When the Error Reporting screen is displayed, ensure that the check box is not selected and then click on "OK."

Error reporting	×
If you enable SQL Server's error reporting feature, SQL Server will be configured to automatically send fatal service error report to Microsoft or a Corporate Error Reporting server.	
If a fatal error occurs, the server sends information about the error to Microsoft over a secure connection, where it is stored with limited access, or to a Corporate Error Reporting server.	
To setup a Corporate Error Reporting server to control the information sent to Microsoft, see http://oca.microsoft.com/cerintro.asp. Microsoft uses the reports only to improve SQL Server, and treats all information as confidential.	
For more information on the error reporting feature and the type of information sent, click Help.	
□ <u>A</u> utomatically send fatal error reports to Microsoft <u>H</u> elp <u>□K</u>	

Figure 3.2.16 Error reporting

This will complete the setup required to allow the Service Pack to be installed. Click on "Next" to begin the installation process.

Start Copying Files		×
	Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.	
	< <u>B</u> ack <u>Next></u> Cancel	

Figure 3.2.17 Start the installation

The setup software may ask you to perform a backup of your database. This is not required for new installations and may be ignored. Click on "OK" to continue.



Figure 3.2.18 Backup notification

Once the installation process is finished, you may be prompted to reboot the computer to complete the process. Remove the CD from the drive and click on Finish to complete the setup process.

Setup Complete	
	Setup has finished copying files to your computer. Before you can use the program, you must restart Windows or your computer. Yes, I want to restart my computer now No, I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup.
	Finish

Figure 3.2.19 Reboot the computer

3.2.2 STARTING THE SQL SERVER

In order for the RAYCHEM Supervisor software to install and run, you must start the SQL Server database service. This can be accomplished by simply rebooting the computer or you may start the Server manually as follows:

Go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL).

Perform a right click on the MSSQLSERVER entry and click on "start."

🚡 Component Services					_ 🗆 ×
🛛 🚡 Console 🛛 <u>W</u> indow H	elp				_ 8 ×
Action ⊻iew					
Tree	Services (Local)				
Console Root	Name 🛆	Description	Status	Startup Type	Log On As 🔺
🗄 🧑 Component Services	Salaring Connection Sharing	Provides n		Manual	LocalSyste
🗄 <u>ត</u> Event Viewer (Local)	w Intersite Messaging	Allows sen		Disabled	LocalSyste
Services (Local)	Rest Policy Agent	Manages I	Started	Automatic	LocalSyste
	Kerberos Key Distribution Center	Generates		Disabled	LocalSyste
	Cicense Logging Service		Started	Automatic	LocalSyste
	🖏 Logical Disk Manager	Logical Disk	Started	Automatic	LocalSyste
	Service Disk Manager Administrative Service	Administrat		Manual	LocalSyste
	McAfee Framework Service	Shared co	Started	Automatic	LocalSyste
	Search Messenger	Sends and	Started	Automatic	LocalSyste
	🖏 Microsoft Search	Creates ful	Started	Automatic	LocalSyste
	MSSQLSERVER .		Started	Automatic	LocalSyste
	MSSQLServerADHelper			Manual	LocalSyste
	Net Logon	Supports p		Manual	LocalSyste
	NetMeeting Remote Desktop Sharing	Allows aut		Manual	LocalSyste
	Network Associates McShield		Started	Automatic	LocalSyste
	Network Associates Task Manager		Started	Automatic	LocalSyste
	Network Connections	Manages o	Started	Manual	LocalSyste

Figure 3.2.20 Manually starting the SQL server service

3.2.3 CONFIGURATION OF A WINDOWS ACCOUNT FOR USE WITH SQL SERVER

Now that you have successfully installed and started SQL Server, you must create an account that will allow the RAYCHEM Supervisor Master Server to access the service.

To accomplish this, go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPUTER MANAGEMENT » LOCAL USERS & GROUPS » USERS.

Action Yiew Image: Participation Tree Name Full Name Description Image: Computer Management (Local) Administrator Built-in account for administering the Image: System Tools ASPNET ASP.NET Machine Account Account used for running the ASP.NE Image: Performance Logs and Alerts Image: Performance Logs and Alerts Image: Performance Logs and Alerts Built-in account IS Process Account Built-in account for Internet Informat Image: Performance Logs and Alerts Image: TsInternetUser TsInternetUser This user account is used by Terminal Image: Performance Logs and Groups Image: Performance Logs and Groups TsInternetUser This user account is used by Terminal	📮 Computer Management				<u>- 🗆 ×</u>	
Computer Management (Local) Administrator System Tools System Tools System Information System Information System Informance Logs and Alerts Shared Folders Device Manager Succul Users and Groups	Action View ← → 1 🔁 📧 2					
Image: System Tools Image: System Tools Image: System Tools Image: System Tools <th>Tree</th> <th>Name</th> <th>Full Name</th> <th>Description</th> <th></th>	Tree	Name	Full Name	Description		
Storage Storage Disk Management Solid Drives Removable Storage Removable Storage Services and Applications	System Tools System Tools System Information System	ASPNET Guest USR_MASTE	Internet Guest Account Launch IIS Process Account	Account used for running the ASP.NE Built-in account for guest access to t Built-in account for anonymous acces Built-in account for Internet Informat		

Figure 3.2.21 Creating a new local user

Right click in the Name area (right-hand side) of the window and click on New User. You may choose any name that you wish for the account, but a name that is representative of the account's use is recommended. For example, "RAYCHEM Master" could be used. Complete each field making specific note of the User name and Password, as these parameters will be required when setting up the Master Server Software. Click "Create" to complete the operation.

New User		? ×
<u>U</u> ser name:	Raychem Master	
<u>F</u> ull name:	Raychem Master	
Description:		
Password:		
<u>C</u> onfirm passwor	d:	
User <u>m</u> ust ch	nange password at next logon	
🔲 U <u>s</u> er cannot	change password	
Pass <u>w</u> ord na	ever expires	
Account is di	isabled	
<u>H</u> elp	Cr <u>e</u> ate Cl <u>o</u> se	

Figure 3.2.22 New user setup

Once the user has been created, it will appear in the user list. Right click on the new user name and go to Properties. Once in the Properties window, choose the General tab and ensure that User cannot change password and Password never expires are both selected.

Raychem Master Properties	<u>?</u> ×
General Member Of Profile	
Raychem Master	
Full name: Raychem Ma	ster
Description:	
User must change password at r	ext logon
User cannot change password	
Password never expires	
Account is disabled	
C Account is locked out	
OK Car	icel <u>A</u> pply Help

Figure 3.2.23 New user properties

Raychem Master Properties	? ×
General Member Of Profile	
Member of:	
🕭 Users	
Changes to a user's group member	
Add Remove are not effective until the next tim user logs on.	e the
OK Cancel Apply	Help

Next, choose the Member Of tab and click on the Add button.

Figure 3.2.24 New user group assignment

In the list of groups, choose Administrators and then click on "Add". This step will ensure that the RAYCHEM Master Server user will have the access it needs to interact with the SQL Server service.

Select Groups		? ×
Look in: ASTERSVR-SQL1		v
Name	In Folder	
☑ Administrators	MASTERSVR-SQL1	
🕼 Backup Operators	MASTERSVR-SQL1	
🚾 Guests	MASTERSVR-SQL1	
🜃 Power Users	MASTERSVR-SQL1	
🖅 Replicator	MASTERSVR-SQL1	
🕼 Users	MASTERSVR-SQL1	
Generation Strates Str	MASTERSVR-SQL1	•
Add Check Names		
<< Type names separated by semicolons or cl	hoose from list >>	
	OK	Cancel

Figure 3.2.25 Set the new user as an administrator

Once the Administrators group has been added, the new user should be a member of both the Administrators and Users groups.

Raychem Master Properties	? ×
General Member Of Profile	
Member of:	
Administrators Users	
Changes to a user's group member are not effective until the next time user logs on.	ship the
OK Cancel Apply H	elp

Figure 3.2.26 User Membership List

Click on "Apply" and then "OK." The new user name should be added to the list.



Figure 3.2.27 Addition of the new user

3.2.4 WINDOWS SERVER LICENSING

The computer on which SQL Server is installed must use Microsoft Windows 2003 Server or Windows 2000 Server as the operating system. The user is responsible for ensuring that the proper licensing following the latest requirements is obtained from Microsoft for legal use of Windows Server and User or Device connections.

A number of options for Windows Server Client Access Licenses (CALs) are available from Microsoft. For a detailed description of the various options, see the Microsoft Website at www. microsoft.com/resources/sam/lic_cal.mspx .

Typical RAYCHEM Supervisor systems will use a mix of Device and User CALs. You will need to purchase a separate Windows Server Device CAL for each Master and Slave Server and a separate Windows Server User CAL for each user in your RAYCHEM system.

3.3 UNINSTALLING MICROSOFT SQL SERVER 2000

You may remove Microsoft SQL Server 2000 from your computer system by following these steps:

- 1. Click the START button, then Select Control Panel.
- 2. Double-Click Add/Remove Programs.
- 3. In the list of installed programs, select Microsoft SQL Server. Click on the Remove button.
- 4. Follow the instructions that appear on the screen.

🐻 Add or Rei	nove Programs			<u>_ ×</u>
Change or	Currently installed programs:	Show updates	Sort by: Name	•
Remove Programs	Microsoft Office Live Meeting 2007		Size	50.65MB
~	G Microsoft Office Professional Plus 2010		Size	751.00MB
5	🥪 Microsoft Silverlight		Size	1.30MB
Add <u>N</u> ew Programs	🥪 Microsoft Silverlight 3 SDK		Size	31.93MB
1	🥪 Microsoft Silverlight 4 SDK		Size	51.68MB
	🗐 Microsoft SQL Server 2000		Size	45.25MB
Add/Remove <u>W</u> indows	Click here for support information.		Used	rarely
Components			Last Used On	23/07/2008
€⁄	To change this program or remove it from your computer,	click Change/Remove.	Chang	e/Remove
Set Program	Microsoft SQL Server 2005		Size 1	,755.00MB
Access and Defaults	Microsoft SQL Server 2005 Backward compatibility		Size	26.18MB
	🔒 Microsoft SQL Server 2005 Books Online (English)		Size	123.00MB
	Microsoft SQL Server 2005 Mobile [ENU] Developer Tools		Size	66.95MB
	Microsoft SQL Server 2008		Size 1	1,513.00MB
	Microsoft SQL Server 2008 R2		Size 1	,703.00MB
	Microsoft SQL Server 2008 R2 Native Client		Size	4.58MB
	🗧 Microsoft SQL Server 2008 R2 Setup (English)		Size	37.15MB
	A Microcoft SOL Server 2008 Setup Support Files			~~~~ ~

Figure 3.3.1 Remove Microsoft SQL Server

3.4 INSTALLING MICROSOFT SQL SERVER 2005

To install Microsoft SQL Server 2005, insert the "Microsoft SQL Server 2005 Standard Edition – Disc 1" CD in your computer's CD-Rom drive. If the installation application does not start automatically, navigate to the CD-Rom drive (D:\ for example) and then double click on Autorun. exe.



Note: This section applies to RAYCHEM Supervisor Enterprise, versions 2.2 and later. If you are installing version 2.1 and earlier, you should refer to Section 3.2 of this guide.



Note: If you are upgrading from a standard (SQL EXPRESS) version of RAYCHEM Supervisor, be sure to follow the procedure in the SQL EXPRESS Installation manual to uninstall SQL EXPRESS first. Ensure that you have completed all of the steps or SQL Server may not install properly.

3.4.1 INSTALLING THE DATABASE SERVER COMPONENTS

Once the install screen appears, click on "Install Server components, tools, Books Online, and samples". The Microsoft SQL Server 2005 End User License Agreement will appear. You must accept the licensing terms and conditions before you can move on with rest of the installation.



Figure 3.4.1 Install SQL Server 2005 Startup menu



Figure 3.4.2 Microsoft SQL Server 2005 End User License Agreement

Once the "Installing Prerequisites" screen appears, click on "Install" to start the Installation.



Figure 3.4.3 Microsoft SQL Server 2005 Installing Prerequisites

For the next couple of screens, follow the on screen instructions. When the "Components to Install" screen appears, select the SQL Server database Services and Workstation components, Books Online and development tools, then click on "Next".

🙀 Microsoft SQL Server 2005 Setup	×
Components to Install Select the components to install or upgrade.	
SQL Server Database Services	
Create a SQL Server failover cluster	
Analysis Services	
Create an Analysis Server failover cluster	
<u>Reporting Services</u>	
Notification Services	
Integration Services	
Workstation components, Books Online and development tools	
For more options, click Advanced.	Advanced
Help < <u>B</u> ack <u>N</u> ext >	Cancel

Figure 3.4.4 Components to Install

When the "Instance Name" screen appears, select Default Instance then click on "Next".

🖶 Microsoft SQL Server 2005 Setup 🗶
Instance Name You can install a default instance or you can specify a named instance.
Provide a name for the instance. For a default installation, click Default instance and click Next. To upgrade an existing default instance, click Default instance. To upgrade an existing named instance select Named instance and specify the instance name.
Default instance Named instance
Help Cancel Cancel

Figure 3.4.5 Instance name

Choose Local System for the "Use the build-in System account", and for "Start services at the end of setup" select SQL Server. Click on "Next."

🙀 Microsoft SQL Server 2005 Setup		×
Service Account Service accounts define which accou	ints to log in.	
<u>Customize for each service accou</u>	unt	
	v	
Use the built-in System account	Local system	•
O Use a domain use <u>r</u> account		
Username:		
Password:		
Domain:		
Start services at the end of setup		
SQL Server		
SQL Server Agent		
SQL Browser		
Help	< <u>B</u> ack <u>N</u> ext >	Cancel

Figure 3.4.6 Service Account

When the "Authentication Mode" screen appears select Windows Authentication Mode then click on "Next".

Microsoft SQL Server 2005 Setup	×
Authentication Mode The authentication mode specifies the security used when connecting to SQL Server.	
Select the authentication mode to use for this installation.	
<u>Windows Authentication Mode</u> <u>Mixed Mode (Windows Authentication and SQL Server Authentication)</u> Specify the sa logon password below:	
Enter password:	
Confirm password:	
Confirm <u>p</u> assword:	

Figure 3.4.7 Authentication Mode

In the "Collation Settings" screen, select SQL collations (used for compatibility with previous versions of SQL Server) option. Click on "Next."

🖁 Microsoft SQL Server 2005 Setu	
Collation Settings Collation settings define the sorting) behavior for your server.
Collation settings for service: SQL Serv	er
Collation designator and sort orde	er:
Latin1_General	
E Binary	🔲 Binary - code point
Case - sensitive	🕅 Kana - sensitive
Accent - sensitive	Width - sensitive
• 50L collations (used for compatib	ility with previous versions of SQL Server)
	omparison, for use with the 850 (Multilingual) case-insensitive databases, for use with the
Dictionary order, case-sensitive, fo	or use with 1252 Character Set.
Dictionary order, case-insensitive, Dictionary order, case-insensitive.	non-use with 1252 Character Set.
Help	< Back Next > Cancel

Figure 3.4.8 Collation Settings

Choose the Error and Usage report settings if required then click on "Next."



Figure 3.4.9 Error and Usage Report Settings

Finally the "Ready to Install" screen should appear, click on "Install" to start the installation.

🖶 Microsoft SQL Server 2005 Setu	ıp		×
Ready to Install Setup is ready to begin installation	۱.		
Setup has enough information to sl change any of your installation set			
 SQL Server Databas SQL Server Databas (Database Services, Replica Client Components, I (Connectivity Components, I Development Studio, SQL Services 	se Services tion, Full-Text 9 Management To	Search) pols, Business Inte	elligence
Help	< <u>B</u> ack	Install	Cancel

Figure 3.4.10 Ready to Install

Once the installation has started the "Setup Progress" screen appears. The installation will take some time to complete and you will be prompted to insert Disc 2 during the installation process.

🐱 Microsoft SQL Server 2005 Setup 🛛 🛛 🔀		
Setup Progress The selected components are being configu	ured	
Product	Status	
	Juatus	
MSXML6		
SQL Setup Support Files	Setup finished	
SQL Native Client	<u>Setup finished</u>	
SQL VSS Writer		
€ OWC11	Configuring components	
SQL Server Backward-Compatibility Files		
SQL Server Database Services		
Visual Studio Integrated Development		
Status		
Copying new files		
Copying file: OWC11.DLL		
Help	<< Back Next >>	Cancel

Figure 3.4.11 Setup Progress

Once the installation has completed, the "Completing Microsoft SQL Server 2005 Setup" appears. Click on "Finish" to complete the installation.



Figure 3.4.12 Complete Microsoft SQL Server 2005 Setup

3.4.2 STARTING THE SQL SERVER

The SQL Server Service should already be started by the installation. If there is a need to manually start the SQL Server Service, this can be accomplished by simply rebooting the computer or you may start the Server manually as follows:

Go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL).

Perform a right click on the SQL Server (MSSQLSERVER) entry and click on "start."



Figure 3.4.13 Manually starting the SQL server service

3.4.3 CONFIGURATION OF A WINDOWS ACCOUNT FOR USE WITH SQL SERVER

Now that you have successfully installed and started SQL Server, you must create an account that will allow the RAYCHEM Supervisor Master Server to access the service.

To accomplish this, go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPUTER MANAGEMENT » LOCAL USERS & GROUPS » USERS.



Figure 3.4.14 Creating a new local user

Right click in the Name area (right-hand side) of the window and click on New User. You may choose any name that you wish for the account, but a name that is representative of the account's use is recommended. For example, "RAYCHEM Master" could be used. Complete each field making specific note of the User name and Password, as these parameters will be required when setting up the Master Server Software. Click "Create" to complete the operation.

New User	? >
User name:	
Eull name:	
Description:	
Password:	
Confirm password:	
 User must change password at next logon User cannot change password 	
Password never expires	
Account is disa <u>b</u> led	
Cr <u>e</u> ate	Cl <u>o</u> se

Figure 3.4.15 New user setup

Once the user has been created, it will appear in the user list. Right click on the new user name and go to Properties. Once in the Properties window, choose the General tab and ensure that User cannot change password and Password never expires are both selected.

aychem Master P	operties		?
General Member O	f Profile		
Raycher	n Master		
<u>F</u> ull name:	Raychem Master		
Description:			
	ige password at next log	on	
User <u>c</u> annot ch			
Password neve			
Account is disa	-		
C Account is lock	ed out		
0	K Cancel	Apply	Help

Figure 3.4.16 New user properties

Raychem Master Properties	? ×
General Member Of Profile	
Member of:	
A Users	
[] I	
Add Bemove Changes to a user's group membe are not effective until the next time user logs on.	
OK Cancel Apply H	lelp

Next, choose the Member Of tab and click on the Add button.

Figure 3.4.17 New user group assignment

In the list of groups, choose Administrators and then click on "Add". This step will ensure that the RAYCHEM Master Server user will have the access it needs to interact with the SQL Server service.

📲 Select Groups		<u>? ×</u>
Look in: 📃 MASTERSVR-SQL1		_
Name	In Folder	▲
Administrators	MASTERSVR-SQL1	
🖅 Backup Operators	MASTERSVR-SQL1	
🖉 Guests	MASTERSVR-SQL1	
🖉 Power Users	MASTERSVR-SQL1	
🛛 壁 Replicator	MASTERSVR-SQL1	
🖉 Users	MASTERSVR-SQL1	_
UHCP Administrators	MASTERSVR-SQL1	<u> </u>
Add Check Names		
<< Type names separated by semicolons	or choose from list >>	
		OK Cancel



Once the Administrators group has been added, the new user should be a member of both the Administrators and Users groups.

Raychem Master Properties	? ×		
General Member Of Profile			
Member of:			
Administrators We Users			
, Changes to a user's group membe	ership		
Add			
OK Cancel <u>A</u> pply	Help		

Figure 3.4.19 User Membership List

Click on "Apply" and then "OK." The new user name should be added to the list.



Figure 3.4.20 Addition of the new user

3.4.4 WINDOWS SERVER LICENSING

The computer on which SQL Server is installed must use Microsoft Windows 2003 Server or Windows 2000 Server as the operating system. The user is responsible for ensuring that the proper licensing following the latest requirements is obtained from Microsoft for legal use of Windows Server and User or Device connections.

A number of options for Windows Server Client Access Licenses (CALs) are available from Microsoft. For a detailed description of the various options, see the Microsoft Website at www. microsoft.com/resources/sam/lic_cal.mspx .

Typical RAYCHEM Supervisor systems will use a mix of Device and User CALs. You will need to purchase a separate Windows Server Device CAL for each Master and Slave Server and a separate Windows Server User CAL for each user in your RAYCHEM system.

3.5 UNINSTALLING MICROSOFT SQL SERVER 2005

You may remove Microsoft SQL Server 2005 from your computer system by following these steps:

- 1. Click the START button, then Select Control Panel.
- 2. Double-Click Add/Remove Programs.
- 3. In the list of installed programs, select Microsoft SQL Server 2005. Click on the Remove button.
- 4. Follow the instructions that appear on the screen.

move Programs			
Currently installed programs:	Show updates	Sort by: Name	1
Microsoft Office Live Meeting 2007		Size	50.65MB
Standard Plus 2010		Size	751.00MB
🥪 Microsoft Silverlight		Size	1.30MB
Wicrosoft Silverlight 3 SDK		Size	31.93MB
Icrosoft Silverlight 4 SDK		Size	51.68MB
Microsoft SQL Server 2000		Size	45.25MB
Microsoft SQL Server 2005		Size	1,755.00MB
Click here for support information.		Used	frequently
To change this program or remove it from your comput	er, click Change or Remove.	Last Used On : Change	16/11/2009 Remove
Microsoft SQL Server 2005 Backward compatibility		Size	26.18MB
Microsoft SQL Server 2005 Books Online (English)		Size	123.00MB
I Microsoft SQL Server 2005 Mobile [ENU] Developer Too	ols	Size	66.95MB
Microsoft SQL Server 2008		Size 1	1,513.00MB
Microsoft SQL Server 2008 R2		Size 1	1,703.00MB
Microsoft SQL Server 2008 R2 Native Client		Size	4.58MB
Hicrosoft SQL Server 2008 R2 Setup (English)		Size	37.15MB
Hicrocoft SOL Server 2008 Setup Support Files		C	04 04MD

Figure 3.5.1 Remove Microsoft SQL Server 2005

3.6 INSTALLING MICROSOFT SQL SERVER 2008

To install Microsoft SQL Server 2008, insert the "Microsoft SQL Server 2008 Standard Edition" CD in your computer's CD-Rom drive. If the installation application does not start automatically, navigate to the CD-Rom drive (D:\ for example) and then double click on Autorun.exe.



Note: This section applies to RAYCHEM Supervisor Enterprise, versions 2.2 and later. If you are installing version 2.1 and earlier, you should refer to Section 3.2 of this guide.



Note: If you are upgrading from a standard (SQL EXPRESS) version of RAYCHEM Supervisor, be sure to follow the procedure in the SQL EXPRESS Installation manual to uninstall SQL EXPRESS first. Ensure that you have completed all of the steps or SQL Server may not install properly.

3.6.1 INSTALLING THE DATABASE SERVER COMPONENTS

Once the SQL Server installation Center screen appears, click on "Installation" menu item, and select "New SQL Server stand-alone installation or add features to an existing installation". The Microsoft SQL Server 2008 License Terms will appear. You must accept the license terms before you can move on with rest of the installation.



Figure 3.6.1 SQL Server 2008 Installation Center

SQL Server 2008 Setup	
To install SQL Server 2008	you must accept the Microsoft Software License Terms.
Product Key License Terms	MICROSOFT SOFTWARE LICENSE TERMS
Setup Support Files	MICROSOFT SQL SERVER 2008 STANDARD EDITION
	These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
	updates,
	supplements,
	Internet-based services, and
	support services
	for this software, unless other terms accompany those items. If so, those terms apply.
	BY USING THE SOFTWARE, YOU ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWARE. INSTEAD, RETURN IT TO THE RETAILER FOR A REFUND OR CREDIT. If you cannot obtain a refund there, contact Microsoft or the Microsoft affiliate serving 💙
	La 📑 Copy Print
	\Box I accept the license terms.
	< Back Next > Cancel

Figure 3.6.2 Microsoft Software License Terms for Microsoft SQL Server 2008 Standard Edition

Setup Support Files			
Click Install to install Setup	Support files. To install or update SQL	Server 2008, these files are requir	red.
roduct Key	The following components	are required for SQL Server Setup	11 (10 (10 (10 (10 (10 (10 (10 (10 (10 (
cense Terms	Feature Name	Status	
etup Support Files	Setup Support Files		
	,		

Once the "Setup Support Files" screen appears, click on "Install" to start the Installation.



For the next couple of screens, follow the on screen instructions. When the "Feature Selection" screen appears, use the "Select All" for a full installation or manually select the feature that is needed. Click on "Next" to continue.

🊼 SQL Server 2008 Setup	• • • • • • • • • • • • • • • • • • •	- -	
Feature Selection Select the Standard features to install. For clustered installations, only Database Engine Services and Analysis Services can be clustered.			
Setup Support Rules Feature Selection Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Error and Usage Reporting Installation Rules Ready to Install Installation Progress Complete	Eeatures: Instance Features ✓ Database Engine Services ✓ SQL Server Replication ✓ Full-Text Search ✓ Analysis Services ✓ Reporting Services Shared Features ✓ Dations Intelligence Development Studio ✓ Client Tools Connectivity ✓ Integration Services ✓ Client Tools SdAwards Compatibility ✓ Client Tools SDK ✓ SQL Server Books Online ✓ Management Tools - Basic ✓ Management Tools - Complete ✓ SQL Client Connectivity SDK ✓ Microsoft Sync Framework Redistributable Features	Description: Server features are instance-aware and have their own registry hives. They support multiple instances on a computer.	
	Shared feature directory: C:\Program Files\Microsoft SQL Se		
	<u> < B</u> ack	<u>N</u> ext > Cancel Help	

Figure 3.6.4 SQL Server 2008 Feature Selection screen

When the "Instance Configuration" screen appears, select Default Instance then click on "Next".

🍀 SQL Server 2008 Setup							
Instance Configuration Specify the name and instance ID for	or the SQL Server ins	stance.			an a		
Setup Support Rules Feature Selection Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Error and Usage Reporting Installation Rules Ready to Install Installation Progress Complete	 <u>D</u>efault instance N<u>a</u>med instance: 		MSSQLSERVER				
	Instance <u>I</u> D: Instance <u>r</u> oot directory:		MSSQLSERVER C: \Program Files \Microsoft SQL Server \				
			C:\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSERVER C:\Program Files\Microsoft SQL Server\MSAS10.MSSQLSERVER /: C:\Program Files\Microsoft SQL Server\MSRS10.MSSQLSERVER				
	Instance	Feat	ures	Edition	Version	Instance ID	
				< <u>B</u> ack	<u>N</u> ext >	Cancel Help	

Figure 3.6.5 Instance Configuration screen

Continue until the Server Configuration screen is reached. In this screen, you must setup an account name for reach Service displayed. Click on the "Collation" tab and check the Collation settings, edit them if required.

50L Server 2008 Setup Server Configuration		Anna finantinan antara ana ana ana ana ana ana ana ana an	n de contraction de la contraction de entraction de la contraction de la contra				
Specify the configuration. Setup Support Rules Feature Selection Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Error and Usage Reporting Installation Rules Ready to Install Installation Progress Complete	Service Accounts Collation Microsoft recommends that you use a Service SQL Server Agent SQL Server Database Engine SQL Server Analysis Services	Account Name NT AUTHORITY\SYSTEM NT AUTHORITY\SYSTEM NT AUTHORITY\LOCAL S	QL Server servic	Startup Type Manual Automatic Automatic			
	Sql Server Reporting Services NT AUTHORITY\LOCAL S Automatic SQL Server Integration Services 10.0 NT AUTHORITY\Network Automatic Use the same account for all SQL Server services These services will be configured automatically where possible to use a low privilege account. On some older Windows versions the user will need to specify a low privilege account. For more information, click Help.						
	Service	Account Name	Password	Startup Type			
	SQL Full-text Filter Daemon Launcher SQL Server Browser	NT AUTHORITY\LOCAL S NT AUTHORITY\LOCAL S		Manual Automatic 💌			
		< <u>B</u> ack	Next >	Cancel Help			

Figure 3.6.6 Server Configuration screen

When the "Database Engine Configuration" screen appears select Windows Authentication Mode. You must also have to specify a SQL Server administrator on this screen. This should be someone with admin privileges. Click on "Next" to continue.
🚼 SQL Server 2008 Setup	
Database Engine Config Specify Database Engine authentic	juration ation security mode, administrators and data directories.
Setup Support Rules Feature Selection Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Error and Usage Reporting Installation Rules Ready to Install Installation Progress Complete	Account Provisioning Data Directories FILESTREAM Specify the authentication mode and administrators for the Database Engine. Authentication Mode • Windows authentication mode • Windows authentication and Windows authentication) Built-in SQL Server authentication and Windows authentication) Built-in SQL Server system administrator account Enter password: C_Qnfirm password: Specify SQL Server administrators WIN-432TYFQNQKB\Administrator (Administrator) SQL Server administrators have unrestricted access to the Database Engine. Add <u>Current User</u> <u>Add</u> <u>Remove</u>
	< <u>B</u> ack <u>N</u> ext > Cancel Help

Figure 3.6.7 Database Engine Configuration screen

In the "Analysis Services Configuration" screen, specify a user that has permission to perform analysis services. Click on "Next."

🚼 SQL Server 2008 Setup		_ 🗆 🗵
Analysis Services Config Specify Analysis Services administr		
Setup Support Rules Feature Selection Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Error and Usage Reporting Installation Rules Ready to Install Installation Progress Complete	Account Provisioning Data Directories Specify which users have administrative permissions fo WIN-432TYFQNQKB\Administrator (Administrator) Add Current User Add Current User Add.	r Analysis Services administrators have urrestricted access to Analysis Services.
	<	ack <u>N</u> ext > Cancel Help

Figure 3.6.8 Analysis Services Configuration screen

On the "Reporting Services Configuration" screen, select a reporting service option, click on "Next."

Specify the Reporting Services of	onfiguration mode.
etup Support Rules eature Selection stance Configuration isk Space Requirements erver Configuration atabase Engine Configuration nalysis Services Configuration teporting Services Configuration rror and Usage Reporting stallation Rules eady to Install stallation Progress omplete	 Install the native mode default configuration. Setup will install the report server and configure it in Native mode to use the default values. The report server is usable as soon as Setup is finished. Install the SharePoint integrated mode default configuration. Setup will create the report server database in SharePoint integrated mode and configure the report server to use the default values. However, integrated operations will not be supported until a minimal installation of a SharePoint product or technology is deployed on the report server computer and the Reporting Services Addin for SharePoint Technologies is installed and configured on the instance of the SharePoint product or technology you are using. Install, but do not gonfigure the report server. Setup will install, but will not configure, the report server software. After installation is finished, you can use the Reporting Services Configuration tool to set options that are required to run the report server.



Continue on with the next few screen, until the "Ready to Install" screen appear, click on "Install" to start the installation.

Verify the SQL Server 2008 featur	res to be installed.
Setup Support Rules Feature Selection Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Error and Usage Reporting Installation Rules Ready to Install Installation Progress Complete	Ready to install SQL Server 2008:



Once the installation has started the "Setup Progress" screen appears. The installation will take some time to complete. When the installation completes, the "Installation progress" screen will be displayed. If there are no errors encountered click on "Next".

Installation Progress		
		
etup Support Rules	Setup process complete	N. W. M. Markallana .
eature Selection		
nstance Configuration		
)isk Space Requirements		
erver Configuration		
atabase Engine Configuration	Feature Name	Status .
nalysis Services Configuration	Database Engine Services	Success
eporting Services Configuration	SQL Server Replication	Success
ror and Usage Reporting	Full-Text Search	Success
stallation Rules	Analysis Services	Success
eady to Install	Reporting Services	Success
stallation Progress	Integration Services	Success
omplete	Client Tools Connectivity	Success
	Management Tools - Complete	Success
	Client Tools SDK	Success
	Client Tools Backwards Compatibility	Success
	Business Intelligence Development Studio	Success
	Management Tools - Basic	Success
	SQL Client Connectivity SDK	Success
	SOL Server Books Online	Success

Figure 3.6.11 Setup Progress

The "Complete" appears. Click on "Close" to exit the installation.

🎲 SQL Server 2008 Setup	
Complete Your SQL Server 2008 installation	completed successfully.
Setup Support Rules Feature Selection Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Error and Usage Reporting Installation Rules Ready to Install Installation Progress	Summary log file has been saved to the following location: <u>C:\Program Files\Microsoft SQL_Server\100\Setup Bootstrap\Log\20110721_121546\Summary_WIN-</u> <u>432TYFONOKB_20110721_121546.tx</u> Information about the Setup operation or possible next steps: Vour SQL_Server 2008 installation completed successfully.
Complete	Supplemental Information: The following notes apply to this release of SQL Server only. Microsoft Update For information about how to use Microsoft Update to identify updates for SQL Server 2008, see the Microsoft Update Web site http://go.microsoft.com/fwlink/?Linkld=108409 > Reporting Services The Reporting Services installation options that you specified in Setup determine whether additional configuration is required before you can access the report server. If you installed the default configuration, the report server.
	CloseHelp

Figure 3.6.12 Complete Microsoft SQL Server 2008 Setup

3.6.2 STARTING THE SQL SERVER

The SQL Server Service should already be started by the installation. If there is a need to manually start the SQL Server Service, this can be accomplished by simply rebooting the computer or you may start the Server manually as follows:

Go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL).

Perform a right click on the SQL Server (MSSQLSERVER) entry and click on "start."

	dow Help						_ 6
Þ 🔿 🖄 🔝 💿 🧕	1						
Console Root	🖏 Services (Local)						Actions
E 👔 Event Viewer (Local)		Name 🔶	Description	Status	Startup	Log On As 🔺	Services (Local)
Services (Local)	SQL Server (MSSQLSERVER)	Secondary Logon	Enables starting pro	Started	Automatic	Local System	More Actions
100	Stop the service	Secure Socket Tunneling Protoc	Provides support for	Started	Manual	Local System	
	Pause the service	Secure Socket Turneing Protoc	The startup of this s	Started	Automatic	Local System	SQL Server (M
	Restart the service	Server	Supports file, print,	Started	Automatic	Local System	More Actions
		Shell Hardware Detection	Provides notification		Automatic	Local System	
	Description:	SL UI Notification Service	Provides Notification	Starteu	Manual	Local System	
	Provides storage, processing and	Smart Card	Manages access to s		Manual	Local Service	
	controlled access of data, and rapid transaction processing.	Smart Card Removal Policy	Allows the system to		Manual	Local System	
	transaction processing.	SNMP Trap	Receives trap messa		Manual	Local System	
		Software Licensing	Enables the downloa	Charles	Automatic	Network S	
		Special Administration Console	Allows administrator	Started	Manual	Local System	
		SQL Active Directory Helper Ser			Disabled	Network S	
		SOL Full-text Filter Daemon Lau		Charles	Manual	Local Service	
		SOL Server (MSSOLSERVER)	Provides storage, pr				
		SQL Server (MSSQLSERVER)		Started	Automatic Manual	Local System Local System	
		SQL Server Agent (MSSQLSERV SQL Server Analysis Services (Supplies online analy	Charles		Local System	
		SOL Server Browser		Started Started	Automatic	Local Service	
			Provides SQL Server Provides manageme	Started	Automatic	Network S	
		Q SQL Server Integration Service			Automatic	Local Service	
		SQL Server Reporting Services	Manages, executes, Provides the interfa	Started Started	Automatic	Local Service Local System	
			Provides the interta Discovers networke	Started	Automatic Disabled		
		SSDP Discovery			a reserve of	Local Service	
		Superfetch	Maintains and impro		Disabled	Local System	
		System Event Notification Service			Automatic	Local System	
		Cask Scheduler	Enables a user to co	Started	Automatic	Local System	
		1					
	Extended Standard						

Figure 3.6.13 Manually starting the SQL server service

3.6.3 CONFIGURATION OF A WINDOWS ACCOUNT FOR USE WITH SQL SERVER

Now that you have successfully installed and started SQL Server, you must create an account that will allow the RAYCHEM Supervisor Master Server to access the service.

To accomplish this, go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPUTER MANAGEMENT » LOCAL USERS & GROUPS » USERS.



Figure 3.6.14 Creating a new local user

Right click in the Name area (right-hand side) of the window and click on New User. You may choose any name that you wish for the account, but a name that is representative of the account's use is recommended. For example, "RAYCHEM Master" could be used. Complete each field making specific note of the User name and Password, as these parameters will be required when setting up the Master Server Software. Click "Create" to complete the operation.

New User	?
<u>U</u> ser name:	Raychem Master
<u>F</u> ull name:	Raychem Master
Description:	
Password:	•••••
<u>C</u> onfirm passwor	d: ••••••
User <u>m</u> ust cł	hange password at next logon
User cannot	change password
Password ne	ever expires
Account is di	isa <u>b</u> led
<u>H</u> elp	Cr <u>e</u> ate Cl <u>o</u> se

Figure 3.6.15 New user setup

Once the user has been created, it will appear in the user list. Right click on the new user name and go to Properties. Once in the Properties window, choose the General tab and ensure that User cannot change password and Password never expires are both selected.

aychem Master P	roperties		?	
General Member Of Profile				
Raycher	n Master			
<u>F</u> ull name:	Raychem Master			
Description:				
User <u>m</u> ust cha	nge password at next logo	m		
User <u>c</u> annot ch	nange password			
Password never expires				
Account is disabled				
C Account is locked out				
()K Cancel	Apply	Help	

Figure 3.6.16 New user properties

Next, choose the Member Of tab and	nd click on the Add button.
------------------------------------	-----------------------------

Raychem Master Properties	? ×
General Member Of Profile	
Member of:	
A Users	
Changes to a user's group member	ehin
Add Bemove are not effective until the next time user logs on.	the
OK Cancel Apply H	lelp

Figure 3.6.17 New user group assignment

In the list of groups, choose Administrators and then click on "Add". This step will ensure that the RAYCHEM Master Server user will have the access it needs to interact with the SQL Server service.

-

Select Groups	? ×
Select this object type:	
Groups From this location:	Object Types
WIN-432TYFQNQKB	Locations
Enter the object names to select (examples):	
WIN-432TYFQNQKB\Administrators	Check Names
<u>A</u> dvanced	OK Cancel

Figure 3.6.18 Set the new user as an administrator

Once the Administrators group has been added, the new user should be a member of both the Administrators and Users groups.

Raychem Master Properties	? ×
General Member Of Profile	
Member of:	
Administrators We Users	
Add <u>Remove</u> Changes to a user's group members are not effective until the next time user logs on.	
OK Cancel <u>A</u> pply H	elp



Click on "Apply" and then "OK." The new user name should be added to the list.



Figure 3.6.20 Addition of the new user

3.6.4 WINDOWS SERVER LICENSING

The computer on which SQL Server is installed must use Microsoft Windows 2003 Server or Windows 2008 Server as the operating system. The user is responsible for ensuring that the proper licensing following the latest requirements is obtained from Microsoft for legal use of Windows Server and User or Device connections.

A number of options for Windows Server Client Access Licenses (CALs) are available from Microsoft. For a detailed description of the various options, see the Microsoft Website at www. microsoft.com/resources/sam/lic_cal.mspx .

Typical RAYCHEM Supervisor systems will use a mix of Device and User CALs. You will need to purchase a separate Windows Server Device CAL for each Master and Slave Server and a separate Windows Server User CAL for each user in your RAYCHEM system.

3.7 UNINSTALLING MICROSOFT SQL SERVER 2008

You may remove Microsoft SQL Server 2008 from your computer system by following these steps:

- 5. Click the START button, then Select Control Panel.
- 6. Double-Click Add/Remove Programs.
- 7. In the list of installed programs, select Microsoft SQL Server 2008. Click on the Remove button.

1-1-1-1

8. Follow the instructions that appear on the screen.

🐻 Add or Rei	nove Programs			<u>- 0 ×</u>
5	Currently installed programs:	Show updates	Sort by: Name	
C <u>h</u> ange or Remove Programs	St Microsoft Office Professional Plus 2010		Size	751.00MB
	🥪 Microsoft Silverlight		Size	1.30MB
- 😽 -	🥪 Microsoft Silverlight 3 SDK		Size	31.93MB
Add <u>N</u> ew Programs	🥪 Microsoft Silverlight 4 SDK		Size	51.68MB
	Microsoft SQL Server 2000		Size	45.25MB
	Microsoft SQL Server 2005		Size	1,755.00MB
Add/Remove Windows	Microsoft SQL Server 2005 Backward compatibility		Size	26.18MB
Components	🔒 Microsoft SQL Server 2005 Books Online (English)		Size	123.00MB
	Microsoft SQL Server 2005 Mobile [ENU] Developer Tools		Size	66.95MB
Set Program	Microsoft SQL Server 2008		Size	1,513.00MB
Access and Defaults	Click here for support information.		Used	occasionally
			Last Used On	17/06/2013
	To change this program or remove it from your computer, clic	k Change/Remove.	Chang	e/Remove
	Microsoft SQL Server 2008 R2		Size	1,703.00MB
	Microsoft SQL Server 2008 R2 Native Client		Size	4.58MB
	Microsoft SQL Server 2008 R2 Setup (English)		Size	37.15MB
	Microsoft SQL Server 2008 Setup Support Files		Size	26.36MB
	Hicrosoft SQL Server Browser		Size	8.98MB

Figure 3.7.1 Remove Microsoft SQL Server 2008

3.8 INSTALLING MICROSOFT SQL SERVER 2012 TO 2019

The installation procedures for Microsoft SQL Server 2012 to 2019 are quite similar therefore the steps described in this section can be used for all identified versions of Microsoft SQL Server.

To install Microsoft SQL Server insert the required media and execute the applicable *Setup.exe file.



IMPORTANT: This section applies to RAYCHEM Supervisor Enterprise, versions 2.2 and later. If you are installing version 2.1 and earlier, you should refer to Section 3.2 of this guide.

IMPORTANT: If you are upgrading from a standard (SQL EXPRESS) version of RAYCHEM Supervisor, be sure to follow the procedure in the SQL EXPRESS Installation manual to uninstall SQL EXPRESS first. Ensure that you have completed all of the steps or the SQL Server may not install properly.

3.8.1 INSTALLING THE DATABASE SERVER COMPONENTS

Once the "SQL Server installation Center" screen appears, click on "Installation" menu item, and select "New SQL Server stand-alone installation or add features to an existing installation". The setup will perform a series of diagnostic to identify problems before allowing the installation to continue. If no problems are reported, you will be prompted to input the License key and you must accept the License terms when the Microsoft SQL Server License Terms appears.



Figure 3.8.1 SQL Server Installation Center

3	SQL Server 2012 Setup	
Setup Support Ru	lles	
Setup Support Rules ide corrected before Setup	entify problems that might occur when you install SQL Server Setup support can continue.	files. Failures must be
Setup Support Rules	Operation completed. Passed: 9. Failed 0. Warning 0. Skipped 0	
	Hide detail <u>s</u> <<	<u>R</u> e-run
	View detailed report	
	Rule	Status
	Setup administrator	Passed
	Setup account privileges	Passed
	Restart computer	Passed
	Windows Management Instrumentation (WMI) service	Passed
	Consistency validation for SQL Server registry keys	Passed
	Long path names to files on SQL Server installation media	Passed
	SQL Server Setup Product Incompatibility	Passed
	.NET 2.0 and .NET 3.5 Service Pack 1 update for Windows 2008	S Passed
	Edition WOW64 plNET 2.0 and .NET 3.5 Service Pack 1 updat	e for Windows 2008 R2 and Windows 7 (
		OK Cancel

Figure 3.8.2 SQL Server Setup Support Rules

1	SQL Server 2012 Setup	x
Product Key Specify the edition of SQL Serv	er 2012 to install.	
Product Key License Terms Product Updates Install Setup Files	Validate this instance of SQL Server 2012 by entering the 25-character key from the Microsoft certificate of authenticity or product packaging. You can also specify a free edition of SQL Server, such as Evaluation or Express. Evaluation has the largest set of SQL Server features, as documented in SQL Server Books Online, and is activated with a 180-day expiration. To upgrade from one edition to another, run the Edition Upgrade Wizard. Specify a free edition: Evaluation Evaluation Evaluation V Evaluation V YFC4R-BRRWB-TVP9Y-6WJQ9-MCJQ7	< III 2
	< <u>B</u> ack <u>N</u> ext > Cancel	

Figure 3.8.3 SQL Server Product Key

1	SQL Server 2012 Setup
License Terms To install SQL Server 2012, yo	u must accept the Microsoft Software License Terms.
Product Key License Terms Product Updates Install Setup Files	MICROSOFT SOFTWARE LICENSE TERMS MICROSOFT SQL SERVER 2012 STANDARD These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft • updates, • supplements, • Internet-based services, and • supnort services ✓ I accept the license terms.
	Send feature usage data to Microsoft. Feature usage data includes information about your hardware configuration and how you use SQL Server and its components. See the Microsoft SQL Server 2012 Privacy Statement for more information. < Back Next > Cancel

Figure 3.8.4 SQL Server License Agreement

1		SQL Server 2012 Setup		-		x
Setup Support Rules Setup Support Rules identify p corrected before Setup can cor		s that might occur when you install SQL Server Setup support file	s. Failures must be			
Setup Support Rules Setup Role Feature Selection Installation Rules Disk Space Requirements Error Reporting	Hi	ration completed. Passed: 6. Failed 0. Warning 1. Skipped 0. de detail <u>s</u> << <u>detailed report</u>			<u>R</u> e-ru	un
Installation Configuration Rules Ready to Install Installation Progress Complete		Rule Fusion Active Template Library (ATL) Previous releases of SQL Server 2008 Business Intelligence Devel No SxS install with SQL Server "Denali" CTPO Consistency validation for SQL Server registry keys Computer domain controller Microsoft .NET Application Security Windows Firewall	Status Passed Passed Passed Passed Passed Warning			
		< <u>B</u> ack <u>N</u> ext >	Cancel		Help	

Figure 3.8.5 SQL Server Setup Support Rules

1	SQL Server 2012 Setup	_ D X
Setup Support Rules		
Setup Support Rules identif corrected before Setup can	problems that might occur when you install SQL Server Setup s ontinue.	support files. Failures must be
Setup Support Rules	Operation completed. Passed: 9. Failed 0. Warning 0. Ski	ipped 0.
	Hide detail <u>s</u> << <u>View detailed report</u>	<u>R</u> e-run
	Rule	Status
	Setup administrator	Passed
	Setup account privileges	Passed
	Restart computer	Passed
	Windows Management Instrumentation (WMI) service	Passed
	Consistency validation for SQL Server registry keys	Passed
	Long path names to files on SQL Server installation me	dia <u>Passed</u>
	SQL Server Setup Product Incompatibility	Passed
	.NET 2.0 and .NET 3.5 Service Pack 1 update for Window	ws 2008 Passed
	Edition WOW64 pl .NET 2.0 and .NET 3.5 Service Pack	1 update for Windows 2008 R2 and Windows 7 (KB9
		OK Cancel

Figure 3.8.6 SQL Server Setup Support Rules

For the next couple of screens, follow the on screen instructions. When the "Feature Selection" screen appears, use the "Select All" for a full installation or manually select the feature that is needed. Click on "Next" to continue.



Figure 3.8.7 SQL Server 2012 Feature Selection

The Management Tools option is no longer part of the "Feature Selection" screen. This option resides in the Installation section of the "SQL Server Installation Center" screen. You can install the Management tool separately as required. The Management tool is needed for backup and restore SQL databases.



Figure 3.8.8 SQL Server 2016 Management Studio Installation

1	SQL Server 2012 Setup) _ 0	x
Installation Rules			
Setup is running rules to determ	nine if the installation process will be blocked. For more information, cli	ck Help.	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Operation completed. Passed: 3. Failed 0. Warning 0. Skipped 0. Hide details < View detailed report Rule Prior Visual Studio 2010 instances requiring update. Product Update Language Compatibility Microsoft .NET Framework 3.5 is installed on Windows 8 or hig	Re- Status Passed Passed Passed Passed	un
		< <u>B</u> ack <u>N</u> ext > Cancel Help	

Figure 3.8.9 SQL Server Installation Rule

When the "Instance Configuration" screen appears, select Default Instance then click on "Next".

1		SQL Server 2	012 Setup		_ 0 ×
Instance Configuration Specify the name and instance		Server. Instance ID becomes part	of the installation path.		
Setup Support Rules Setup Role Feature Selection	 Default instance Named instance: 	MSSQLSERVER			
Installation Rules Instance Configuration Disk Space Requirements Server Configuration	Instance <u>I</u> D: Instance <u>r</u> oot directory:	MSSQLSERVER C:\Program Files (x86)\Microso	it SQL Server\		
Database Engine Configuration Error Reporting Installation Configuration Rules Ready to Install	SQL Server directory: Insta <u>l</u> led instances:	C:\Program Files (x86)\Microso	ft SQL Server\MSSQL11.MSS	QLSERVER	
Installation Progress Complete	Instance Name	Instance ID	Features	Edition	Version
	-			< Back Next >	Cancel Help

Figure 3.8.10 SQL Server Instance Configuration

Continue until the "Server Configuration" screen is reached. In this screen, you must setup an account name for each Service displayed. Edit them if required otherwise leave them as is. Click on the "Collation" tab and check the Collation settings, edit them if required.

Server Configuration Specify the service accounts and collation configuration.	i x
Setup Role	
Feature Selection Microsoft recommends that you use a separate account for each SQL Server service. Installation Rules Service Account Name Password Startup Typ. Installation Rules SQL Server Agent NT Service/SQLSER/VERAGENT Manual Disk Space Requirements SQL Server Browser NT Service/MSQLSER/VERAGENT Automatic Server Onfiguration SQL Server Browser NT AUTHORITY/LOCAL SERVICE Disabled Installation Configuration Rules Ready to Install Installation Progress Complete	e
< <u>Back</u> <u>N</u> ext > Cancel H	elp



Server Configuration stup Support Rules etup Support Rules etup Role eature Selection nstalletion Rules instance Configuration kick Space Requirements inverver Configuration Natabase Engine Configuration interver Configuration hatabase Engine Configuration interver Configuration natalation Configuration Rules hatabase Engine Configuration intra Reporting natalation Progress complete	۰
etup Support Rules Service Accounts Collation etup Role Database Engine stallation Rules SQL_Latin1_General_CP1_CL_AS stance Configuration Latin1-General_CP2_CL_AS tabase Engine Curer 52 on Code Page 1252 for non-Unicode Data stallation Configuration stallation Configuration atabase Engine SQL_Latin1_General_CP1_CL_AS Latin1-General_case-insensitive, accent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL Server Sort Order 52 on Code Page 1252 for non-Unicode Data	
stallation Orfiguration SQL_Latin1_General_CPT_CLAS Curst stallation Rules SQL_Latin1_General_CPT_CLAS Curst stallation Configuration Latin1-General_case-insensitive, accent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL Server Sort Order 52 on Code Page 1252 for non-Unicode Data stallation Configuration addy to Install stallation Progress Substance Configuration Substance Configuration	
	tomize.

Figure 3.8.12 SQL Server Server Collation

When the "Database Engine Configuration" screen appears select Windows Authentication Mode. You must also have to specify a SQL Server administrator on this screen. This should be someone with admin privileges. Click on "Next" to continue.

5	SQL Server 2012 Setup	_ D
Database Engine Confi	guration	
Specify Database Engine auther	tication security mode, administrators and data directories.	
Setup Support Rules Setup Support Rules Feature Selection nstallation Rules nstance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting nstallation Configuration Rules Ready to Install	Server Configuration Data Directories Specify the authentication mode and administrators for the Database Engine. Authentication Mode	
Complete	Specify SQL Server administrators WIN-NHV0K3NV/GEAE1170909 (E1170909)	SQL Server administrators have unrestricted access to the Database Engine.
	Add <u>C</u> urrent User <u>A</u> dd <u>R</u> emove	
	< <u>B</u> ack	Next > Cancel Help

Figure 3.8.13 SQL Server Database Engine Configuration

The next sets of screen are for "Error Reporting" and "Installation Configuration Rules". Click on "Next" to continue.

1	SQL Server 2012 Setup	
Error Reporting Help Microsoft improve SQL Se	ever features and services.	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Specify the information that you would like to automatically send to Microsoft to improve future releases of SQL optional. Microsoft treats this information as confidential. Microsoft may provide updates through Microsoft Up data. These updates might be downloaded and installed on your machine automatically, depending on your Aut See the Microsoft SQL Server 2012 Privacy Statement for more information, Read more about Microsoft Update and Automatic Update.	date to modify feature usage tomatic Update settings.
	< ĝack Next >	Cancel Help

Figure 3.8.14 SQL Server Error Reporting

1	SQL Server 2012	Setup	_ 0 ×
Installation Configurat	tion Rules		
Setup is running rules to deten	mine if the installation process will be blocked. For more informa	tion, click Help.	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements	Operation completed. Passed: 4. Failed 0. Warning 0. Skipp Hide details_<< <u>View detailed report</u>	ed 0.	Be-run
Server Configuration	Rule	Status	
Database Engine Configuration	FAT32 File System	Passed	
Error Reporting	Existing clustered or cluster-prepared instance	Passed	
Installation Configuration Rules	Cross language installation	Passed	
Ready to Install	Same architecture installation	Passed	
Installation Progress			
Complete			
		< <u>B</u> ack	Next > Cancel Help

Figure 3.8.15 SQL Server Installation Configuration Rules

When the "Ready to Install" screen is reached, the setup is ready to install SQL Server onto your computer. Click on "Install" to start the installation.

1	SQL Server 2012 Setup	
Ready to Install Verify the SQL Server 2012 fea	tures to be installed.	
Verify the SQL Server 2012 fea Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Dirk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	tures to be installed. Ready to install SQL Server 2012: Summary Action: Install (Product Update) Prerequisites Action: Install (Product Update) Action: Install (Product Updat	
	Configuration file path: C:\Program Files (x86)\Microsoft SQL Server\110\Setup Bootstrap\Log\20170213_122718\ConfigurationFile.ini	
	< <u>B</u> ack <u>I</u> nstall	Cancel Help

Figure 3.8.16 SQL Server Ready to Install

When the installation is complete, Click on "Close" to exit the installation.

	SQL Server	2012 Setup
Complete		
Your SQL Server 2012 install	ation completed successfully with product updates.	
tup Support Rules	Information about the Setup operation or possible next	tene
tup Role		· · · · · · · · · · · · · · · · · · ·
ature Selection	Feature	Status
allation Rules	Management Tools - Complete Client Tools Connectivity	Succeeded Succeeded
ance Configuration	Management Tools - Basic	Succeeded
k Space Requirements	Database Engine Services	Succeeded
1	SQL Server Replication	Succeeded
ver Configuration	SOL Browser	Succeeded
abase Engine Configuration	SQL Writer	Succeeded
or Reporting	SQL Client Connectivity	Succeeded
allation Configuration Rules	SQL Client Connectivity SDK	Succeeded
ady to Install		
tallation Progress		
mplete	D 1 1	
	Details:	
	Viewing Product Documentation for SQL Serve	16
	Viewer component uses the online library. After ins	hage the documentation for SQL Server have been installed. By default, the Help talling SQL Server, you can use the Help Library Manager component to download formation, see <u>Use Microsoft Books Online for SQL Server</u> .
	Microsoft Update	
	For information about how to use Microsoft Update <u><http: ?linkid="108409" fwlink="" go.microsoft.com=""></http:></u> W	to identify updates for SQL Server 2012, see the <u>Microsoft Update</u> /ebsite.
	Summary log file has been saved to the following location	in:
		Bootstrap\Log\20170213 122718\Summary WIN-NHV0K3NVGEJ 20170213 122718.txt

Figure 3.8.17 SQL Server Installation Complete

3.8.2 STARTING THE SQL SERVER

The SQL Server Service should already be started by the installation. If there is a need to manually start the SQL Server Service, this can be accomplished by simply rebooting the computer or you may start the Server manually as follows:

Go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL).

Perform a right click on the SQL Server (MSSQLSERVER) entry and click on "start."

Console Root Component Services Exert Viewer (Local) Services (Local) Services (Local)	Services (Local)							
	SQL Server (MSSQLSERVER) Stop the service Pause the service Restart the service Description: Provides storage, processing and controlled access of data, and rapid transaction processing.	Name G Secondary Logon G Secure Socket Tunneling Protocol S Security Accounts Manager G Server S Shell Hardware Detection Simple Mail Transfer Protocol (SMTP) G Smart Card Sonart Card Device Enumeration Ser	Manages acces	Running	Startup Type Manual Manual Automatic Automatic Manual Disabled Manual (Trig	Lo: ^ Lo: Lo: Lo: Lo: Lo: Lo: Lo:	Services More SQL Ser More	
		Smart Card Removal Policy Mark Style Software Protection Software Protection Software Protection Software Protection Software Protection Software Mark Software Software (MSSQL SERVER)	Allows the syst Receives trap Enables the do Allows adminis Verifies potenti Provides storag	Running	Manual Manual Automatic (D Manual Manual (Trig Automatic	Loi Loi Ne Loi Loi		
		SQL Server Agent (MSSQLSERVER) SQL Server Browser SQL Server CEIP service (MSSQLSER SQL Server VSS Writer SSDP Discovery Storage Tiers Management	Executes jobs, Provides SQL S CEIP service for Provides the int Discovers netw Optimizes the		Manual Disabled Automatic Automatic Disabled Manual	NT Loi Loi Loi ≡ Loi		
		Superfetch System Event Notification Service System Events Broker Gassscheduler GatskScheduler Gator Phylogenet	Maintains and i Monitors syste Coordinates ex Enables a user t Provides suppo		Manual Automatic Automatic (T Automatic Automatic (T	Loi Loi Loi Loi Loi		
		Telephony Telnet Themes Thread Ordering Server	Provides Telep Enables a remo Provides user e Provides ordere	Running	Manual Disabled Automatic Manual	Ne Loi Loi >		

Els Aster Mercu Mercu		Component Services					
Eile Action View Windo	ow <u>H</u> elp						
Console Root	Services (Local)						Actions
> 💩 Component Services	SQL Server (MSSQLSERVER)	Name	Description	Status	Startup Type	Lo: ^	Services
Event Viewer (Local)	SQL SCIVEI (INSSQLSEIVER)	Secondary Logon	Enables startin		Manual	Lo	More
Services (Local)	Stop the service		Provides suppo		Manual	Lo	More
	Pause the service	Security Accounts Manager	The startup of t	Running	Automatic	Lo	SQL Ser
	Restart the service	G Server	Supports file, p	Running	Automatic	Lo	More
		Shell Hardware Detection	Provides notific	Running	Automatic	Lo	
	Description:	Simple Mail Transfer Protocol (SMTP)	Transports elec	-	Manual	Lo	
	Provides storage, processing and	Smart Card	, Manages acces		Disabled	Lo	
	controlled access of data, and rapid transaction processing.	Smart Card Device Enumeration Ser			Manual (Trig	Lo	
	transaction processing.	Smart Card Removal Policy	Allows the syst		Manual	Lo	
		SNMP Trap	Receives trap		Manual	Lo	
		Software Protection	Enables the do		Automatic (D	Ne	
		Special Administration Console Hel	Allows adminis		Manual	Lo	
		Spot Verifier	Verifies potenti		Manual (Trig	Lo	
		Q SQL Server (MSSQLSERVER)	Provides storag	Running	Automatic	NT	
		SQL Server Agent (MSSQLSERVER)	Executes jobs,		Manual	NT	
		SQL Server Browser	Provides SQL S		Disabled	Lo	
		SQL Server CEIP service (MSSQLSER	CEIP service for	Running	Automatic	NT	
		🔍 SQL Server VSS Writer	Provides the int	Running	Automatic	Lo	
		SSDP Discovery	Discovers netw		Disabled	Lo, ≡	
		Storage Tiers Management	Optimizes the		Manual	Lo	
		🔍 Superfetch	Maintains and i		Manual	Lo	
		System Event Notification Service	Monitors syste	Running	Automatic	Lo	
		🛸 System Events Broker	Coordinates ex	Running	Automatic (T	Lo	
		🔍 Task Scheduler	Enables a user t	Running	Automatic	Lo	
		CP/IP NetBIOS Helper	Provides suppo	Running	Automatic (T	Lo	
		😘 Telephony	Provides Telep		Manual	Ne	
		😘 Telnet	Enables a remo		Disabled	Lo	
		🔍 Themes	Provides user e	Running	Automatic	Lo	
		Chread Ordering Server	Provides ordere		Manual	Lo. ~	
		<				>	1

Figure 3.8.18 Manually starting the SQL Server Service

3.8.3 CONFIGURATION OF A WINDOWS ACCOUNT FOR USE WITH SQL SERVER

Now that you have successfully installed and started Microsoft SQL Server, you must create an account that will allow the RAYCHEM Supervisor Master Server to access the Microsoft SQL Server service.

To accomplish this, go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPUTER MANAGEMENT » LOCAL USERS & GROUPS » USERS.



Figure 3.8.19 Current System Users

Right click in the Name area (right-hand side) of the window and click on New User. You may choose any name that you wish for the account, but a name that is representative of the account's use is recommended. For example, "RAYCHEM Master" could be used. Complete each field making specific note of the User name and Password, as these parameters will be required when setting up the Master Server Software. Click "Create" to complete the operation.

		New U	Jser		?	x
<u>U</u> ser name:	Raychem	Master				
<u>F</u> ull name:	Raychem	Master				
Description:						
<u>P</u> assword:	••	•••••	•••			
<u>C</u> onfirm passwor	i: ••	•••••	•••			
User <u>m</u> ust ch	ange passw	ord at next	logon			
User cannot	hange pass	sword				
Password net	ver expires					
Account is di	a <u>b</u> led					
<u>H</u> elp				Cr <u>e</u> ate	Cl <u>o</u> s	se

Figure 3.8.20 New user setup

Once the user has been created, it will appear in the user list. Right click on the new user name and go to Properties. Once in the Properties window, choose the General tab and ensure that User cannot change password and Password never expires are both selected.

	Ray	ycher	m Master F	ropertie	5	?)
Remote co	ntrol	Ren	note Desktop \$	Services Pro	ile	Dia	l-in
General	Member	r Of	Profile	Environm	ient	Sess	ions
Ra Ra	ychem Ma	ster					
<u>F</u> ull name:	F	Rayche	m Master				
Description:	Γ						
User canr <u>P</u> assword Account i	not change	passw ires	d at next logor rord	1			

Figure 3.8.21 RAYCHEM Master User Properties

Raychem Master Properties ? X								
Remote control	Remot	te Desktop S	Services Profile	Dial-in				
General Memb	oer Of	Profile	Environment	Sessions				
Member of:								
A Users								
		Changes t	o a user's group me	mbership				
A <u>d</u> d	Remove	are not eff user logs (ective until the next	time the				
		2						
0	К	Cancel	Apply	Help				

Next, choose the Member Of tab and click on the Add button.

Figure 3.8.22 User group membership assignment

In the list of groups, choose Administrators and then click on "Add". This step will ensure that the RAYCHEM Master Server user will have the access it needs to interact with the SQL Server service.

Select Groups	×
<u>S</u> elect this object type:	
Groups	Object Types
From this location:	
WIN-NHV0K3NVGEJ	Locations
Enter the object names to select (<u>examples</u>):	
WIN-NHV0K3NVGEJ\Administrators	Check Names
Advanced 0	K Cancel

Figure 3.8.23 New User group assignment

Once the Administrators group has been added, the new user should be a member of both the
Administrators and Users groups.

R	Raychem Master Properties						
Remote control	Remo	ote Desktop S	ervices Profile	Dia	l-in		
General Memb	er Of	Profile	Environment	Sess	ions		
Member of:							
Administrators							
Add	<u>l</u> emove	Changes t are not eff user logs c	o a user's group me ective until the next on.	mbershij time the	p e		
0	ĸ	Cancel	Apply	He	elp		

Figure 3.8.24 User membership list

Click on "Apply" and then "OK." The new user name should be added to the list.



Figure 3.8.25 Addition of user 'RAYCHEM Master'

3.8.4 WINDOWS SERVER LICENSING

The computer on which SQL Server is installed must use Microsoft Windows® 2008 Server or higher as the operating system. The user is responsible for ensuring that the proper licensing following the latest requirements is obtained from Microsoft for legal use of Windows® Server and User or Device connections.

A number of options for Windows Server Client Access Licenses (CALs) are available from Microsoft. For a detailed description of the various options, see the Microsoft Website at www. microsoft.com/resources/sam/lic_cal.mspx .

Typical RAYCHEM Supervisor systems will use a mix of Device and User CALs. You will need to purchase a separate Windows Server Device CAL for each Master and Slave Server and a separate Windows Server User CAL for each user in your RAYCHEM Supervisor system.

3.9 UNINSTALLING MICROSOFT SQL SERVER 2012 TO 2019

You may remove Microsoft SQL Server from your computer system by following these steps:

- 1. Click the START button, then Select Control Panel.
- 2. Double-Click Add/Remove Programs.
- 3. In the list of installed programs, select Microsoft SQL Server. Click on the Remove button.
- 4. Follow the instructions that appear on the screen.

	Programs an	d Features			_ 0	~
) 💿 🔻 🛉 🖪 א Control P	anel		v d	Search Pr	ograms and Features	۶
Control Panel Home	Uninstall or change a program					
View installed updates	5 1 5					
1	To uninstall a program, select it from the list and then	click Uninstall, Change, or Repair.				
Turn Windows features on or off	Organize Vninstall/Change				-	
	Organize 👻 Uninstall/Change				8== •	
	Name	Publisher	Installed On	Size	Version	
	Microsoft .NET Framework 4 Multi-Targeting Pack	Microsoft Corporation	2/14/2017	83.4 MB	4.0.30319	
	🔀 Microsoft Help Viewer 1.1	Microsoft Corporation	2/14/2017	3.97 MB	1.1.40219	
	Microsoft Report Viewer 2012 Runtime	Microsoft Corporation	2/14/2017	26.2 MB	11.0.2100.60	
	冒 Microsoft SQL Server 2008 R2 Management Objects	Microsoft Corporation	2/14/2017	15.3 MB	10.51.2500.0	
	Microsoft SQL Server 2008 Setup Support Files	Microsoft Corporation	2/14/2017	28.2 MB	10.1.2731.0	
	Microsoft SQL Server 2012	Microsoft Corporation	2/14/2017			
	Microsoft SQL Server 2012 Native Client	Microsoft Corporation	2/14/2017	7.22 MB	11.3.6020.0	
	Microsoft SQL Server 2012 Policies	Microsoft Corporation	2/14/2017	996 KB	11.0.2100.60	
	Microsoft SQL Server 2012 Setup (English)	Microsoft Corporation	2/14/2017	42.5 MB	11.3.6020.0	
	📄 Microsoft SQL Server 2012 Transact-SQL Compiler Ser	Microsoft Corporation	2/14/2017	84.8 MB	11.0.2100.60	
	Microsoft SQL Server 2012 Transact-SQL ScriptDom	Microsoft Corporation	2/14/2017	4.54 MB	11.3.6020.0	
	Microsoft SQL Server System CLR Types	Microsoft Corporation	2/14/2017	2.53 MB	10.51.2500.0	
	Microsoft System CLR Types for SQL Server 2012	Microsoft Corporation	2/14/2017	1.68 MB	11.3.6020.0	
	Microsoft Visual C++ 2008 Redistributable - x64 9.0.30	Microsoft Corporation	2/13/2017	13.2 MB	9.0.30729.6161	
	Microsoft Visual C++ 2008 Redistributable - x86 9.0.30	Microsoft Corporation	2/13/2017	10.1 MB	9.0.30729.4148	
	Microsoft Visual C++ 2008 Redistributable - x86 9.0.30	Microsoft Corporation	2/14/2017	10.1 MB	9.0.30729.4974	
	Microsoft Visual C++ 2010 x64 Redistributable - 10.0	Microsoft Corporation	2/14/2017	13.8 MB	10.0.40219	
	Microsoft Visual C++ 2010 x86 Redistributable - 10.0	Microsoft Corporation	2/14/2017	11.1 MB	10.0.40219	
	Microsoft Visual C++ 2010 x86 Runtime - 10.0.40219	Microsoft Corporation	2/14/2017	15.9 MB	10.0.40219	
	🔀 Microsoft Visual Studio 2010 Shell (Isolated) - ENU	Microsoft Corporation	2/14/2017	579 MB	10.0.40219	
	Microsoft VSS Writer for SQL Server 2012	Microsoft Corporation	2/14/2017	2.92 MB	11.3.6020.0	
	aychem Supervisor Client	Pentair Thermal Management	2/14/2017	35.0 MB	2.7.97.6412	
	Raychem Supervisor Master Server	Pentair Thermal Management	2/14/2017	5.19 MB	2.7.97.6412	
	SAP Crystal Reports runtime engine for .NET Framew	SAP	2/14/2017	207 MB	13.0.1.220	
	SQL Server Browser for SQL Server 2012	Microsoft Corporation	2/14/2017	9.89 MB	11.3.6020.0	
	Microsoft Corporation Help link: http://g	jo.microsoft.com/fwlink/?Linkld=1	154582			

Figure 3.9.1 Remove Microsoft SQL 2012 Server

	Programs an	d Features			_ 0	2
) 💿 🔹 🕇 🧱 🕨 Control I	Panel		~ ¢	Search Pr	ograms and Features	۹
Control Panel Home	Uninstall or change a program					
View installed updates	To uninstall a program, select it from the list and then	click Uninstall, Change, or Repair.				
Turn Windows features on or						
off	Organize 👻 Uninstall/Change					(
	Name	Publisher	Installed On	Size	Version	
	Microsoft .NET Framework 4.5.1 Multi-Targeting Pack	Microsoft Corporation	2/13/2017	49.3 MB	4.5.50932	
	Microsoft .NET Framework 4.5.1 Multi-Targeting Pac	Microsoft Corporation	2/13/2017	74.5 MB	4.5.50932	
	Microsoft .NET Framework 4.5.1 SDK	Microsoft Corporation	2/13/2017	19.4 MB	4.5.51641	
	Microsoft .NET Framework 4.5.2 Multi-Targeting Pack	Microsoft Corporation	2/13/2017	49.4 MB	4.5.51209	
	Microsoft .NET Framework 4.5.2 Multi-Targeting Pac	Microsoft Corporation	2/13/2017	74.4 MB	4.5.51209	
	Hicrosoft Help Viewer 2.2	Microsoft Corporation	2/13/2017	12.1 MB	2.2.23107	
	Microsoft ODBC Driver 13 for SQL Server	Microsoft Corporation	2/13/2017	4.80 MB	13.0.1601.5	
	Microsoft SQL Server 2008 Setup Support Files	Microsoft Corporation	2/13/2017	39.0 MB	10.3.5500.0	
	Microsoft SQL Server 2012 Native Client	Microsoft Corporation	2/13/2017	7.19 MB	11.3.6518.0	
	Microsoft SQL Server 2014 Management Objects	Microsoft Corporation	2/13/2017	24.7 MB	12.0.2000.8	
	Microsoft SQL Server 2016	Microsoft Corporation	2/13/2017			
	Microsoft SQL Server 2016 (64-bit)	Microsoft Corporation	2/13/2017			
	Microsoft SQL Server 2016 Policies	Microsoft Corporation	2/13/2017	1.03 MB	13.0.1601.5	
	Microsoft SQL Server 2016 Setup (English)	Microsoft Corporation	2/13/2017	170 MB	13.0.1711.0	
	Microsoft SQL Server 2016 T-SQL Language Service	Microsoft Corporation	2/13/2017	7.25 MB	13.0.14500.10	
	Microsoft SQL Server 2016 T-SQL ScriptDom	Microsoft Corporation	2/13/2017	7.35 MB	13.0.1601.5	
	Microsoft SQL Server Data-Tier Application Framewor	Microsoft Corporation	2/13/2017	18.3 MB	13.0.3432.1	
	Generation Management Studio - 16.4.1	Microsoft Corporation	2/13/2017	2.76 GB	13.0.15900.1	
	Microsoft System CLR Types for SQL Server 2014	Microsoft Corporation	2/13/2017	5.69 MB	12.0.2402.11	
	Microsoft System CLR Types for SQL Server 2016	Microsoft Corporation	2/13/2017	5.63 MB	13.0.1601.5	
	Microsoft Visual C++ 2008 Redistributable - x64 9.0.30	Microsoft Corporation	2/13/2017	13.2 MB	9.0.30729.6161	
	Microsoft Visual C++ 2008 Redistributable - x86 9.0.30		2/13/2017	10.1 MB	9.0.30729.4148	
	Microsoft Visual C++ 2010 x64 Redistributable - 10.0		2/13/2017	13.8 MB	10.0.40219	
	Microsoft Visual C++ 2010 x86 Redistributable - 10.0		2/13/2017	11.0 MB	10.0.40219	
	Microsoft Visual C++ 2013 Redistributable (x64) - 12.0		2/13/2017	20.5 MB	12.0.21005.1	
	Microsoft Corporation Help link: http://g	go.microsoft.com/fwlink/?Linkld=	154582			

Figure 3.9.2 Remove Microsoft SQL 2016 Server

3.10 INSTALLING RAYCHEM SUPERVISOR

The installation program will start up the Installation Wizard, which will guide you through the installation process. You are required to read and accept the Software License Agreement. Once you read and agree with the license agreement, click the Yes button and the installation will continue. If you do not agree with the license agreement, click No and the installation will terminate.



Note: The following Sections assume that you have already installed a database application (either SQL EXPRESS or SQL Server) on the same computer as the one where the RAYCHEM Supervisor Master Server software will be installed. If you have not yet completed this step, refer to Sections 3.2, 3.4, 3.6, or 3.8 for additional information on how to do this.

3.10.1 INSTALLING RAYCHEM SUPERVISOR MASTER SERVER

To start the RAYCHEM Master Server installation, insert the "RAYCHEM Supervisor Disk 1 – Application and Utilities" CD (SQL versions) into the PC's CD-Rom drive. Navigate to the Installation folder and double click on the RAYCHEM SupervisorMasterServerSetup.exe file. The installation begins by checking the computer for software components that are required to run RAYCHEM Supervisor. If there are components missing, it will install them for you. You may be asked to reboot your computer during the installation of those components, please select Yes to reboot.

🐞 Raychem Supervisor Master Server Setup	×
The following components will be installed on your machine:	
Microsoft .NET Framework 4 (x86 and x64)	
Do you wish to install these components?	
If you choose Cancel, setup will exit.	
Install Cancel	

Figure 3.10.1 Setup screen showing missing components to be installed

If there are no missing components the "Welcome to the RAYCHEM Supervisor Master Server Setup Wizard" screen will appear. Click on "Next" to continue to the License Agreement.

🞲 Raychem Supervisor Master Server Setup	_		×
Welcome to the Raychem Supervisor Master Server Setup Wizard	nv	lent	YCHEM
The installer will guide you through the steps required to install Raychem Sup on your computer. This software requires Microsoft .NET Framework 4.0, Mic Components (MDAC) version 2.7 or higher, Microsoft SQL Server 2000 or hig Express.	rosoft D	ata Acce:	88
WARNING: This computer program is protected by copyright law and interna Unauthorized duplication or distribution of this program, or any portion of it, ma or criminal penalties, and will be prosecuted to the maximum extent possible u	ay result	in severe	civil
Cancel <u>B</u> ack		<u>N</u> ext	

Figure 3.10.2 Welcome screen for RAYCHEM Supervisor Master Server installation

🖟 Raychem Supervisor Master Serve	r Setup	_		×
License Agreement			nvent	AYCHEM
Please take a moment to read the licens Agree'', then "Next". Otherwise click "C		accept the term	s below, clic	k''I
nVent Thermal, LLC				^
Raychem Super∨isor™ Progra	m Software License Agre	ement		
PLEASE REVIEW THE FOLLO LICENSE AGREEMENT (THE AGREEMENT BETWEEN YOU ("NVENT THERMAL"). THE TE THE RAYCHEM SUPERVISO	"AGREEMENT") CAREF J, THE END USER, AND RMS OF THIS AGREEM	ULLY. THIS IS A NVENT THERMA IENT GOVERN Y	LEGAL AL, LLC OUR USE (-
◯ I <u>D</u> o Not Agree	● I Agree			
	Cancel	<u>B</u> ack	<u>N</u> e>	«t

Figure 3.10.3 License Agreement for RAYCHEM Supervisor Master Server

Continue with the next few screens until the Installation complete screen. At this point, the RAYCHEM Supervisor Master Server software is already installed in your computer, however the next step is to associate the SQL Server that will be used by the RAYCHEM Supervisor Master Server. The RAYCHEM Supervisor Master Server Configuration Utility will guide you from this point on.

🕼 Raychem Supervisor Master Server Setup	_		×
Installation Complete	n	Vent R	AYCHEM
Raychem Supervisor Master Server has been successfully installed.			
The Raychem Supervisor master server has been installed, but still needs to operations.	be coni	figured for	proper
Please click "Close" to start the configuration utility.			
Please use Windows Update to check for any critical updates to the .NET F	ramewo	ırk.	
Cancel <u>B</u> ack		<u>C</u> los	e

Figure 3.10.4 RAYCHEM Supervisor Master Server Installation Complete



Figure 3.10.5 RAYCHEM Supervisor Master Server Configuration Utility

You will be prompted to enter a Database Server Name – enter the name that was defined during the database installation process (see Figures 3-2-6, 3-4-5 or 3-6-6). If you did not enter a specific database Instance name as instructed, then the name will simply be the Master Server computer name. If you do not recall your computer name, you can find it by performing a right click on My Computer and going to Properties. Once the window opens, click on the Computer Name tab.

Once you know your Computer Name enter it into the Database Server Name field and click on "Next." (Refer to Figure 3.8.6)

Master Server Configuration Utility 3.0.142	_		\times
SQL Server Information	nver	nt RAYC	HEM
Please specify the SQL server you want to use as the datastore.			
SQL server name CAED1L8301\SQL2019			
CANCEL < <u>B</u> ACK		<u>N</u> EXT	

Figure 3.10.6 RAYCHEM Supervisor database server information screen

If you are installing over an existing RAYCHEM Supervisor installation, you will be prompted to choose an Existing System Database option, otherwise the Confirm Configuration screen will be displayed.

Master Server Configuration Utility 3.0.142	_		\times
Existing System Database Options	nve	nt RAYC	HEM
A system database named 'EHTPLUS' already exists in the specified SQL server.Please choose one of the following options:			
 Keep existing database Back up existing database, delete it, then create a new one Backup file Restore from a backup file, deleting existing database Delete existing database, then create a new one 			
CANCEL < <u>B</u> ACK		<u>N</u> ext	

Figure 3.10.7 Select an Existing System Database Option screen

There are network specific options that can affect the operations of the Raychem Supervisor Master Server, therefore select the options that are appropriate for your application.

Click "Next" to continue.

Master Server Configuration Utility 3.0.142	_		\times
Master Server Networking Options	nver	nt RAYC	HEM
Master Server Network Address Selection Select a network address to identify the Master Server. By default the first availab address for the computer is used.	ble networl	k	
10.19.5.40 Firewall Settings For remote connectivity, ports 8887, 8888 and 8889 should be open in the comp firewall. Enable Firewall to allow traffic on ports 8887, 8888, and 8889.	uter's		
CANCEL < <u>B</u> ACK		NEXT	

Figure 3.10.8 Master Server Networking Options

If there are errors encountered during the installation, please refer to section Appendix – B Troubleshooting on how to correct the problem, otherwise the installation Complete screen is displayed. Make sure the checkbox for the "Restart RAYCHEM Supervisor Master Server for the new configuration to take effect" is checked, then click "Close" to exit the installation.

We now have enough information to begin updating the Raychem Supervisor I configuration. Click 'Next' to begin.	_		×
Confirm Configuration	nve	nt RAYC	HEM
We now have enough information to begin updating the Raychem Supervisor Ma configuration.	ister Server		
Click 'Next' to begin.			
CANCEL < <u>B</u> ACK		NEXT	

Figure 3.10.9 Confirm Configuration

Master Server Configuration Utility 3.0.142	_		×
Configuration Complete	兴		
	nver	NT RAYC	HEM
Raychem Supervisor Master Server configuration has been sucessfully updated.			
Click "Close" to exit.			
Restart Raychem Supervisor Master Server for the new configuration to take effect	:t		
CANCEL < <u>B</u> ACK		<u>C</u> LOSE	

Figure 3.10.10 Installation Complete Screen

3.10.2 CONFIGURING THE MASTER SERVER SOFTWARE

After installing the Master Server Software, perform the following steps to configure the Master Server:

For SQL Server-based installations perform the following additional steps:

You must configure the Master Service to automatically log in to Windows Server. To do this, go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL) » RAYCHEM SUPERVISOR MASTER SERVER SERVICE.

Component Services I ⊕ Ein Action Very Wordswitzele ⊕ To Bit Bit Control Very Wordswitzele ⊕ Services (Local) ● Services (Local) ⊕ Services (Local) ⊕ Services (Local) ⊕ Services (Local) ⊕ Services (Local) ⊕ Services (Local) ⊕		_					
Image: Control Book Image: Control Book Image: Control Book Image: Control Book <th>فلدر</th> <th>겝.</th>	فلدر	겝.					
🗈 📧 📽 🖻 🗟 😫 🗷							
	(Local)						
Event Viewer (Local) 🌼 Sen	vices (Local)						
	Supervisor Master Server	Name 🗡	Description	Status	Startup Type	Log On As	1
	Raychem Supervisor Master Server II Service Sign the service Description The Service Service Description The Service Master Server. If this service is stopped, most of the Raychem Supervisor functions will fail	Net. Tcp Port Sharing Service	Provides ability to sh		Disabled	Local Service	
		NetMeeting Remote Desktop Sharing	Enables an authorize		Manual	Local System	
		Network Access Protection Agent	Allows windows clien		Manual	Local System	
Restart the		Network Connections	Manages objects in t	Started	Manual	Local System	
		Network DDE	Provides network tra		Disabled	Local System	
		Network DDE DSDM	Manages Dynamic D		Disabled	Local System	
		Network Location Awareness (NLA)	Collects and stores n	Started	Manual	Local System	
		Network Provisioning Service	Manages XML config		Manual	Local System	
		NT LM Security Support Provider	Provides security to		Manual	Local System	
		Performance Logs and Alerts	Collects performance		Manual	Network S	
		Plug and Play	Enables a computer t	Started	Automatic	Local System	
		Portable Media Serial Number Service	Retrieves the serial		Manual	Local System	
		Print Spooler	Loads files to memor	Started	Automatic	Local System	
	his is the Raychen Supervisor Master evers. If this serve is stopped, noos of ne Raychen Supervisor functions will fail.	Protected Storage	Provides protected s	Started	Automatic	Local System	
		QoS RSVP	Provides network sig		Manual	Local System	
		Raychem Supervisor Master Server Service	This is the Raychem	Started	Automatic	Local System	L
		Remote Access Auto Connection Manager	Creates a connectio		Manual	Local System	
		Remote Access Connection Manager	Creates a network c		Manual	Local System	
		🍓 Remote Desktop Help Session Manager	Manages and control		Manual	Local System	
		Remote Procedure Call (RPC)	Provides the endpoin	Started	Automatic	Network S	
		Remote Procedure Call (RPC) Locator	Manages the RPC na		Manual	Network S	
		Remote Registry	Enables remote user	Started	Automatic	Local Service	
		Removable Storage			Manual	Local System	
	f 🖌 Standard /	Routing and Remote Access	Offers routing servic		Disabled	Local System	_

Figure 3.10.11 Configure the Master Server

Right click on RAYCHEM Supervisor Master Server Services and select Properties. Once in the Properties window, choose the Log On tab. Select Log On as: and This account. Click on the "Browse" button and choose the new user account that was created in Section 3.6.3. Enter the same password that you used when the account was created.



Note: You must re-enter the password into both the Password and the Confirm Password fields. Click on "Apply" and then "OK."

aychem	Supervi	sor Mas	ter Server Serv	vice Propertie	s (Local Com
General	Log On	Recove	ery Dependencie	es	
Log on	as:				
_	al System Allo <u>w</u> serv		eract with desktop)	
• <u>T</u> his	s account:	- F	.\Raychem Maste	r	Browse
<u>P</u> as	sword:	ſ	•••••	•••	
<u>C</u> on	firm passw	ord:	•••••	•••	
Help me configure user account log on options.					
			01/	1 0	1 0-1-
			ОК	Cancel	Apply



If successful, you will be granted access to the Windows Server.



Figure 3.10.13 Access granted to the Windows Server

3.10.3 CONFIGURING MICROSOFT SQL 2000 WITH THE MASTER SERVER

SQL Server 2000 must be configured to allow the Master Server to connect to it. Do this by clicking on START » PROGRAMS » MICROSOFT SQL SERVER » ENTERPRISE MANAGER » MICROSOFT SQL SERVERS » SQL SERVER GROUP » MASTERSVR-SQL1 » DATABASES » EHTPLUS » USERS.



Note: In the example above, the Database Server name is "MASTERSVR-SQL1". In your application, this will be replaced by the Database Server name that was assigned during the database server installation process (refer to Section 3.2, Figure 3-2-6).

SQL Server Enterprise Manager					<u>. ×</u>
⊆onsole <u>W</u> indow <u>H</u> elp					
Console Root\Microsoft SQL Servers\SQL Serve			olus\Users	-0×	
	🚰 🖸 😼 😫 🛛 🔆 📩	↓/UUU			
Tree	Users 1 Item				
Console Root	Name 🛆	Login Name Database A	vccess		
🚊 🌗 Microsoft SQL Servers	1 dbo	Permit			
🗄 📵 SQL Server Group	1				
ASTERSVR-SQL1 (Windows NT)	1				
🖻 🧰 Databases	1				
	1				
Tables	1				
- for Views	1				
- Kored Procedures	1				
💽 Users	1				
Roles	1				
Rules	1				
Defaults	1				
User Defined Data Types	1				
Ful-Text Catalogs	1				
🗄 🚺 master	1				
😥 🚺 model	1				
😟 😥 🔋 msdb	1				
🗈 🕖 Northwind	1				
⊞- 📔 pubs	1				
⊕ ⊕ tempdb ⊕ ⊡ Data Transformation Services	1				
Data Transformation Services	1				
Replication	1				
E Security	1				
Support Services	1				
😟 🧰 Meta Data Services					
	1				
	1				
11	1				

Figure 3.10.14 Database users

Right Click on the right hand side of the screen and choose New Database User. In the Database User Properties window, choose the Login name that was created in Section 3.2 (see Figure 3.2.6). If the name does not appear in the list, click on "<new>" to add it.

Database l	Jser Properties - New User	×I
General		
		1
	Login name: Eermissions	
<u></u>	User name: BUILTIN\Administrators	
Databas	sa s	Π
<u>D</u> atabas	e role membership:	Ш
	Permit in Database Role	
	db_owner	Ш
	db_accessadmin	
	db_securityadmin	Ш
	db_backupoperator db_datareader	Ш
	db_datawriter	Ш
	db_denydatareader	Ш
	db_denydatawriter	
	P <u>r</u> operties	
	OK Cancel Help	1

Figure 3.10.15 Select the database user

In the SQL Server Login Properties – New Login window, click on the "..." button to browse and pick the user name that was previously created in Section 3.2 (Figure 3-2-6). Click "Add" and then "OK."

5QL Server Login Properties - New Login						
General Server Roles Database Access						
MASTERSVR-SQL1\Raychem M						
Authentication	-					
<u> W</u> indows Authentication						
Domain: MASTERSVR-SQL1						
Security access:						
Grant access						
C Deny access						
C SQL Server Authentication Password:						
Defaults Specify the default language and database for this login.	-					
Database: master						
Language: <default></default>						
OK Cancel Help						

Figure 3.10.16 Add a new database user

The Authentication and Defaults fields will automatically be populated with the appropriate information once the new user has been added. Do not modify these settings. Click "OK" to accept.

SQL Server Lo	5QL Server Login Properties - New Login				
General Se	rver Roles Data	abase Access			
🤹 и	ame: M/	ASTERSVR-SQL	1\tester		
Authenticati	ion —				
•	Windows Authe	ntication			
	Do <u>m</u> ain:	MASTER	SVR-SQL1	•	
	Security access	:			
		cess			
	🔿 Denyac	cess			
0	<u>SQL</u> Server Aut Password:	hentication		_	
Defaults		J			
Sp	ecify the default l	anguage and da	tabase for this lo	gin.	
<u>D</u> a	atabase:	master		•	
<u>L</u> a	nguage:	<default></default>		•	
		ОК	Cancel	Help	

Figure 3.10.17 Add new database user

After the Login name has been chosen, ensure that both the public and db_owner selections are enabled in the Database role membership area. Then click "OK."

Database	User Properties - New User 🛛 🛛 💌
General	
	Login name: MASTERSVR-SQL1\Ray ▼ User name: MASTERSVR-SQL1\Raych
<u>D</u> atabas	se role membership:
	Permit in Database Role
	db_owner db_accessadmin db_securityadmin
	db_ddladmin db_backupoperator
	db_datareader db_datawriter
	db_denydatareader db_denydatawriter
	Properties
	OK Cancel Help

Figure 3.10.18 Set database role

The SQL Server Enterprise Manager should now show the RAYCHEM Master Server as a database user.



Figure 3.10.19 New database user created

Close the SQL Server Enterprise Manager window.

3.10.4 CONFIGURING MICROSOFT SQL 2005 WITH THE MASTER SERVER

SQL Server 2005 must be configured to allow the Master Server to connect to it. Do this by clicking on START » PROGRAMS » MICROSOFT SQL SERVER 2005 » SQL SERVER MANAGEMENT STUDIO. You will be prompted to login to the SQL database Server.

J Connect to Server	×
SQL Serve	Microsoft Windows Server System
Server <u>t</u> ype:	Database Engine
<u>S</u> erver name:	WINSERVER2003
Authentication:	Windows Authentication
<u>U</u> ser name:	WINSERVER2003\Administrator
<u>P</u> assword:	
	■ Remember password
<u>C</u> onnect	Cancel Help <u>Options >></u>

Once the connection is successful navigate to WINSERVER2003 » DATABASES » EHTPLUS » SECURITY » LOGINS.



Note: In the example above, the Database Server name is "WINSERVER2003". In your application, this will be replaced by the Database this will be replaced by the Database Server name that was assigned during the database server installation process (refer to Section 3.4, Figure 3-4-5).

Figure 3.10.20 Connect to Server



Figure 3.10.21 Microsoft SQL Server Management Studio Logins

Right Click on the right hand side of the screen and choose New Logins. Enter the name that was previously created in section 3.6.3 (i.e. RAYCHEM Master). The Authentication and Defaults fields will automatically be populated with the appropriate information once the new login has been added. Do not modify these settings. Click "OK" to accept.

Login - New	1				
Select a page Ceneral	🔜 Script - 🚯 Help				
Server Roles	Login name:	WINSERVER2003\Raychem Master	S <u>e</u> arch		
🚰 Securables 🚰 Status	 Windows authentication SQL Server authentication 				
	Password:				
	Confirm password				
	Enforce password policy				
	 Enforce password expiration User must change passwo 				
	C Mapped to certificate				
	Certificate name:				
	C Mapped to asymmetric key				
Connection	Key name:				
Server: CAED1D0129\SQL2005	Default database:	master	•		
Connection: CAED1D0129\ptom	Default language:	<default></default>	•		
View connection properties					
Progress					
C Ready					
		ОК	Cancel		

Figure 3.10.22 New Login

After you've successfully added the new Login, navigate to WINSERVER2003 » DATABASES » EHTPLUS » SECURITY » USERS and add a new user. Enter a new user name such as RAYCHEM Master and use the browse button to select the previously created Login name "RAYCHEM Master" for the Login name field. Select db_accessadmin and db_owner for both Owned Schemas and Role Members field. Click "OK" to save the new user.

🖾 Script 👻 🚺 Help		
User name: C Login name: C Cetificate name: C Key name: C Weberd Foria	Raychem Master WINSERVER2003\Raychem Master	
Default schema: Schemas gwned by this user:	[
Owned Schemas		<u> </u>
db_backupoperator db_datareader db_datawriter db_datawriter		
db_denydatawriter		•
Database role membership:		
Bole Members Image: db_accessadmin Image: db_backupoperator Image: db_datareader Image: db_datareader		^
db_datawriter db_ddladmin db_denydatareader db_denydatawriter		_
	User name: Login name: C	User name: Raychem Master © Login name: WINSERVER2003\Raychem Master © Detificate name:

Figure 3.10.23 Add a new database user

After you successfully added the new user, it will appear in the Users screen.

A hen Josh Muque Country			
(Serr 12) 🔂 🔂 🔂 🔂 🗃 🗐	Ø 8 3 8 8 9 .		
urw + + +	hemery		
10:17			
	a a # Y Mut- Bloot -		
AED100129(53,2005 (53, Server 9.5.1399 - 0			
Datubases	📋 Users		
k 🎑 System Databases			
K 🍃 Detabase Snapshota	CAED/D0129/5032009Extabases/shtpka/Securb/Islams		5 Dat
d aftplus			
ik 🛄 Extebace Diagrams			
III 🛄 Tables	Nate	Oreated	
H 🛄 Yeve	3.do	06/04/2005	
II 🧰 Tonorona	2 perc	06/04/2000	
🕫 🎑 Programability	ANHOR JOHN	14/10/2005	
16 🦾 Service Broker	A. e.e	14/10/2005	
ik 🕞 Storage	A kayben Hastar	62/59/2015	
S Ca Secuty	1		
A DAMA SOLENA SOLENA			
A 815			
K 🕞 Raychem Master			
ik 🥁 Scheman ik 🙀 Asymmetric Keye			
ii 📴 Cartification			
II Cal Schenetric Keys			
Security			
Sever Olents			
helonon			
Management			
Notification Services			
50, Server Agent (Agent IPs disbled)			
State of the state			



You can now close the Microsoft SQL Server Management Studio.
3.10.5 CONFIGURING MICROSOFT SQL 2008 WITH THE MASTER SERVER

SQL Server 2008 must be configured to allow the Master Server to connect to it. Do this by clicking on START » PROGRAMS » MICROSOFT SQL SERVER 2008 » SQL SERVER MANAGEMENT STUDIO. You will be prompted to login to the SQL database Server.

Raychem	Master Pro	perties			? >
General	Member Of	Profile			
<u>M</u> embe	r of:				
🌆 U:	sers				
Δc	d	Remove		to a user's group ffective until the n	
	<u></u>	Пошоле			
	ОК		Cancel	Apply	Help

Figure 3.10.25 Connect to Server

Once the connection is successful navigate to WIN-432TYFQNQKB » DATABASES » EHTPLUS » LOGINS.



Note: In the example above, the Database Server name is "WIN-432TYFQNQKB". In your application, this will be replaced by the Database Server name that was assigned during the database server installation process (refer to Section 3.6, Figure 3-6-6).



Figure 3.10.26 Microsoft SQL Server Management Studio Logins

Right Click on the right hand side of the screen and choose New Logins. Enter the name that was previously created in section 3.6.3 (i.e. RAYCHEM Master). The Authentication and Defaults fields will automatically be populated with the appropriate information once the new login has been added. Do not modify these settings. Click "OK" to accept.

Script • 🚺 Help		
Login name:	WIN-432TYFQNQKB\Raychem Master	Sgarch_
Windows authentication		
C SQL Server authentication		
Easeword:	[-
Confirm password:		-
Specify old password		
Qfd password:		-
Frence password polic	y .	
Friorce password egge	ation	
	word at next login	
Mapped to certificate	1	-
C Mapped to asymmetric key	1	-
Map to Credential		* Bdd
Mapped Credentials	Credential Provider	
		Remoye
Default database:	master	•
	(default)	-
	Windows authentication SQL Server authentication Eassword: Qorfem password: Gorfem password:	Windows authentication SQL Server authentication Bassword Qorfen password Qorfen password Qid password Qid password Qid password Qid password Qid password Qid password expration Force password expration Viser must change password at next login Mapped to ceptificate Mapped Credential Mapped Credential Mapped Credential Mapped Section

Figure 3.10.27 New Login

After you've successfully added the new Login, navigate to WIN-432TYFQNQKB » DATABASES » EHTPLUS » SECURITY » USERS and add a new user. Enter a new user name such as RAYCHEM Master and use the browse button to select the previously created Login name "RAYCHEM Master" for the Login name field. Select db_accessadmin and db_owner for both Owned Schemas and Role Members field. Click "OK" to save the new user.

felect a page	式 Sonpt 🔹 🚺 Help		
General Securables Estended Properties	User name: C Login name: C Cotificate name: C Key name: C Without login Default schema:	Raychem Master WiN-432TYFQNQKB\DigTrace Master	_
	Schemas guned by this user: Owned Schemas		
	db_backupoperator db_datareader db_datawriter db_ddfadmin db_ddfadmin db_dmrvdstareader		
Connection	b_denydatawrter		-
Server:	Database role membership:		
WIN-432TYFQNQKB Connection: WIN-432TYFQNQKB\Administratic Win-432TYFQNQKB\Administratic Win-432TYFQNQKB WIN-432TYFQNQKB WIN-432TYFQNGKB WIN-432TYFQNQKB WIN-432TYFQNGKB WIN-43	Role Members		-
	1=	ОК	Cancel

Figure 3.10.28 Add a new database user

After you successfully added the new user, it will appear in the Users screen.

Overnet experiores experiores experiores excesses excesses	52m
(#)4(200) 0(#)4(200) 14(1)62(20) 14(1)62(20)	
(#)4(200) 0(#)4(200) 14(1)62(20) 14(1)62(20)	
(#)4(200) 0(#)4(200) 14(1)62(20) 14(1)62(20)	
(#)4(200) 0(#)4(200) 14(1)62(20) 14(1)62(20)	5 Dar
(#)4(200) 0(#)4(200) 14(1)62(20) 14(1)62(20)	
(#)4(200) 0(#)4(200) 14(1)62(20) 14(1)62(20)	
(#)4(200) 0(#)4(200) 14(1)62(20) 14(1)62(20)	
(#)4(200) 0(#)4(200) 14(1)62(20) 14(1)62(20)	
10674-0000 1410/2005 1410/2006	
14/02/005 14/02/005	
14102005	
609(20)5	
	14102005

Figure 3.10.29 Users

You can now close the Microsoft SQL Server Management Studio.

3.10.6 CONFIGURING MICROSOFT SQL 2012, 2014, 2016 WITH THE MASTER SERVER

SQL Server 2012, 2014, 0r 2016 must be configured to allow the Master Server to connect to it. Do this by clicking on START » PROGRAMS » MICROSOFT SQL SERVER 2012/2014/2016 » SQL SERVER MANAGEMENT STUDIO. You will be prompted to login to the SQL database Server.

Connect to Server					
SQL Ser	"Ver "2012				
Server type:	Database Engine	~			
<u>S</u> erver name:	WIN-NHV0K3NVGEJ	~			
<u>A</u> uthentication:	Windows Authentication	~			
<u>U</u> ser name:	WIN-NHV0K3NVGEJ\E1170909	\sim			
Password:					
	Remember password				
<u>C</u> onnec	t Cancel Help Option	\$ >>			

Figure 3.10.30 Connect to SQL Server in SQL Server Management Studio



Important: RAYCHEM Supervisor Master Server must be installed before you can configure the Supervisor database. The name of the Supervisor database is EHTPlus.

Once the connection is successful navigate to WIN-NHVOK3NVGEJ » DATABASES » EHTPLUS » LOGINS. Use the View pull down menu and select Object Explorer Details or F7 to show the object details.



MPORTANT: In the example above, the Database Server name is "WIN-NHVOK3NVGEJ". In your application, this will be replaced by the Database Server name that was assigned during the database server installation process (refer to Section 3.8, Figure 3-8-10).

👂 Object Explorer Details - Microsoft SQL Server Management Studio 🛛 🗖 🗙							
File Edit View Iools Window Help							
: 🛅 🕶 📨 🥁 🗐 🥥 🔔 New Query 📑 📸 📸	121 3 日 121 ウ・ペ・恩・馬 224	•	- 🛛 🖉 🗒				
Object Explorer → ‡ ×	Object Explorer Details ×			-			
Connect * 🛃 🛃 = 🍸 🖉 🎿	🕲 😳 🔰 🚅 🍸 😰 🔏 Search			-			
WIN-NHV0K3NVGEJ (SQL Server 11.0.6020 - WIN Databases	WIN-NHV0K3NVGEJ (SQL Server 11.0.6020 - WIN-NHV0K3NVGEJ\E1170909)\Security\Logins						
Security	Name	Create Date	Policy Health State				
🗉 🦢 Logins	♣ ##MS_PolicyEventProcessingLogin##	2/13/2017 12:43 PM					
🚑 ##MS_PolicyEventProcessingLogin#	🖧 ##MS_PolicyTsqlExecutionLogin##	2/10/2012 9:07 PM					
##MS_PolicyTsqlExecutionLogin##	A NT AUTHORITY\SYSTEM	2/13/2017 12:42 PM					
A NT AUTHORITY\SYSTEM	MT Service\MSSQLSERVER	2/13/2017 12:42 PM					
A NT Service\MSSQLSERVER	MT SERVICE\SQLSERVERAGENT	2/13/2017 12:42 PM					
NT SERVICE\SQLSERVERAGENT	MT SERVICE\SQLWriter	2/13/2017 12:42 PM					
NT SERVICE\SQLWriter	A NT SERVICE\Winmgmt	2/13/2017 12:42 PM					
A NT SERVICE\Winmgmt	🤷 sa	4/8/2003 9:10 AM					
A WIN-NHV0K3NVGEJ\E1170909	WIN-NHV0K3NVGEJ\E1170909	2/13/2017 12:42 PM					
Will-INFIVORSIVVGE)(E1170909 Server Roles							
Gerventoles Gredentials							
Cryptographic Providers							
H in Audits							
Server Audit Specifications							
🗉 🧰 Server Objects							
Replication							
🗉 🚞 AlwaysOn High Availability							
🕫 🚞 Management							
🛞 🦢 Integration Services Catalogs							
SQL Server Agent (Agent XPs disabled)							
	Pa 1 1						
	Logins						
	9 Items						
< III >							
Ready							

Figure 3.10.31 Microsoft SQL Server Management Studio User Logins

Right Click on the right hand side of the screen and choose New Logins. Enter the name that was previously created in section 3.8.3 (i.e. RAYCHEM Master). The Authentication and Defaults fields will automatically be populated with the appropriate information once the new login has been added. Do not modify these settings. Click "OK" to accept.

Select a page General Server Roles	Script 🔻 📑 Help			
Server Roles				
Place Mapping Securables Status	<u>Windows authentication</u> <u>SQL Server authentication</u> <u>Password:</u> <u>Confirm password:</u> Specify old password Old password:	WIN-NHV0K3NVGEJ\Ra	aychem Master	Search
Connection	Gid password: Gid password: Finforce password expiral Gid password expiral	tion		
Server: WIN-NHV0K3NVGEJ Connection: WIN-NHV0K3NVGEJ\E1170909	Mapped Credentials	Credential	Provider	
View connection properties Progress				Remo <u>v</u> e
Ready	Default <u>d</u> atabase: Default language:	master <default></default>	ок	

Figure 3.10.32 Adding a New Login to SQL Server

After you've successfully added the new Login, navigate to WIN-NHVOK3NVGEJ » DATABASES » EHTPLUS » SECURITY » USERS and add a new user. Enter a new user name such as RAYCHEM Master and use the browse button to select the previously created Login name "RAYCHEM Master" for the Login name field. Select db_accessadmin and db_owner for both Owned Schemas and Role Members field. Click "OK" to save the new user.

i C	Patabase User - WIN-NHV0K3NVGEJ\Raychem Master	- 🗆 X
Select a page	Script 👻 🌇 Help	
Image: Contract Schemas Image: Membership Image: Securables Image: Securables<	Schemas owned by this user: Owned Schemas Image: db_accessadmin db_baccusporator db_datareader db_datawriter db_ddladmin db_dernydatareader db_dernydatareader db_dernydatareader db_dernydatawriter Image: db_securityadmin guest	
Connection		
Server: WIN-NHV0K3NVGEJ Connection: WIN-NHV0K3NVGEJ\E1170909 관 View connection properties		
Progress		
Ready		
	ОК	Cancel

Figure 3.10.33 Setting the Owned Schema for the new login user for EHTPlus database

After you successfully added the new user, it will appear in the Users screen.



Figure 3.10.34 Setting the Database roles for the new login user for EHTPlus database You can now close the Microsoft SQL Server Management Studio.

3.10.7 STARTING THE RAYCHEM Supervisor MASTER SERVER SERVICE

The RAYCHEM Supervisor Master Server service must now be started. This can be accomplished by either of the methods described in Section 3.2.2, 3.4.2, or 3.6.2.

3.10.8 INSTALLING THE RAYCHEM SUPERVISOR SLAVE SERVER

To start the RAYCHEM Slave Server installation, insert the "RAYCHEM Supervisor Disk 1 – Application and Utilities" CD (SQL versions) into the PC's CD-Rom drive. Navigate to the Installation folder and double click on the RAYCHEM SupervisorSlaveServerSetup.exe file. The installation begins by checking the computer for software components that are required to run RAYCHEM Supervisor. If there are some required components missing, it will install them for you. You may be asked to reboot your computer during the installation of those components, please select Yes to reboot.

🗴 Raychem Si	pervisor Slave 9	Server Setup	×
The following c	omponents will be in	istalled on your machine:	
Microsoft .N	ET Framework 4	(x86 and x64)	
, Do you wish	to install these c	components?	
lf you choose C	ancel, setup will exi	t.	
	<u>I</u> nstall	<u>Cancel</u>	

Figure 3.10.35 Setup screen showing missing components to be installed

If there are no missing components the "Welcome to the RAYCHEM Supervisor Slave Server Setup Wizard" screen will appear. Click on "Next" to continue to the License Agreement.

🖟 Raychem Supervisor Slave Server Setup	_		×
Welcome to the Raychem Supervisor Slave Server Setup Wizard	n	Vent R	AYCHEM
The installer will guide you through the steps required to install Raychem Su your computer. This software requires Microsoft .NET Framework 4.0, Micro Components (MDAC) version 2.7 or higher, Microsoft SQL Server 2000 or H Express.	soft Data	a Access	
WARNING: This computer program is protected by copyright law and interr Unauthorized duplication or distribution of this program, or any portion of it, r or criminal penalties, and will be prosecuted to the maximum extent possible	nay resul	t in severe	civil
Cancel <u>B</u> ack		<u>N</u> exi	

Figure 3.10.36 Welcome screen for RAYCHEM Supervisor Slave Server installation

🛃 Raychem Supervisor Slave Server Setup			-		×
License Agreement			<mark>≥'</mark> n√€	ent RAY	CHEM
Please take a moment to read the licens Agree", then "Next". Otherwise click "C		ou accept the terr	ns belo	w, click '	1
nVent Thermal, LLC					^
Raychem Supervisor™ Progra	m Software License A	greement			
PLEASE REVIEW THE FOLLO LICENSE AGREEMENT (THE AGREEMENT BETWEEN YOU ("NVENT THERMAL"). THE TE THE RAYCHEM SUPERVISO	"AGREEMENT") CAR I, THE END USER, AN RMS OF THIS AGREI	EFULLY. THIS IS ND NVENT THERN EMENT GOVERN	A LEG IAL, LL YOUR	AL C	*
◯ I <u>D</u> o Not Agree	● I Agree				
	Cancel	<u>B</u> ack		<u>N</u> ext	

Figure 3.10.37 License Agreement for RAYCHEM Supervisor Slave Server

Continue with the next few screens	until the Inst	tallation comp	lete screen.
------------------------------------	----------------	----------------	--------------

🔀 Raychem Supervisor Slave Server Setup	—		×
Installation Complete	n	Vent R	AYCHEM
Raychem Supervisor Slave Server has been successfully installed. Click "Close" to exit.			
Please use Windows Update to check for any critical updates to the .NET F	ramewo	ork.	
Cancel <u>B</u> ack		<u>C</u> lose	e

Figure 3.10.38 RAYCHEM Supervisor Slave Server Installation Completed

3.10.9 STARTING THE RAYCHEM Supervisor SLAVE SERVER SERVICE

The RAYCHEM Supervisor Slave Server service should now be started. If for some reason it is not, please follow the methods described in Section 3.2.2, 3.4.2, or 3.6.2. The Windows Services are listed in the Services Applet, under Control Panel->Administrative Tools\Component Services.

3.10.10 INSTALLING RAYCHEM SUPERVISOR CLIENT

To start the RAYCHEM Client installation, insert the "RAYCHEM Supervisor Disk 1 – Application and Utilities" CD (SQL versions) into the PC's CD-Rom drive. Navigate to the Installation folder and double click on the RAYCHEM SupervisorClientSetup.exe file. The installation begins by checking the computer for software components that are required to run RAYCHEM Supervisor. If there are some required components missing, it will install them for you. You may be asked to reboot your computer during the installation of those components, please select Yes to reboot.

🐞 Raychem Supervisor Client Setup	×
The following components will be installed on your machine:	
Microsoft .NET Framework 4 (x86 and x64)	_
 Do you wish to install these components?	
If you choose Cancel, setup will exit.	
Install Cancel	

Figure 3.10.39 Setup screen showing missing components to be installed

If there are no missing components the "Welcome to the RAYCHEM Supervisor Client Setup Wizard" screen will appear. Click on "Next" to continue.



Figure 3.10.40 Welcome screen for RAYCHEM Supervisor Client installation

Raychem Supervisor Client Setup			—		×
License Agreement			nVe	ent RAY	CHEM
Please take a moment to read the licens Agree", then "Next". Otherwise click "C		u accept the te	erms belo	ow, click ''	1
nVent Thermal, LLC					^
Raychem Supervisor™ Progra	m Software License Agr	eement			
PLEASE REVIEW THE FOLLO LICENSE AGREEMENT (THE AGREEMENT BETWEEN YOU ("NVENT THERMAL"). THE TE THE RAYCHEM SUPERVISO	"AGREEMENT") CAREF I, THE END USER, AND RMS OF THIS AGREEM	FULLY. THIS I NVENT THEF MENT GOVERI	s a leg Rmal, ll N Your	AL .C	*
◯ I <u>D</u> o Not Agree	Agree				
	Cancel	<u>B</u> ack		<u>N</u> ext	

Figure 3.10.41 License Agreement for RAYCHEM Supervisor Client

Continue with the next screens until the Installation complete screen.
--

👹 Raychem Supervisor Client Setup			_		×
Installation Complete			nV	ent RAY	CHEM
Raychem Supervisor Client has been successfully Click "Close" to exit.	installed.				
Please use Windows Update to check for any crit	ical updates to	o the .NET Fra	mework		
	ancel	Back		<u>C</u> lose	

Figure 3.10.42 RAYCHEM Supervisor Client Installation Completed

You can now start the RAYCHEM Supervisor Client software by locating the RAYCHEM SupervisorClient icon on your desktop and double click on it.



Figure 3.10.43 RAYCHEM Supervisor Client Icon

3.11 UNINSTALLING RAYCHEM SUPERVISOR

Prior to removing any RAYCHEM Supervisor components from your computer system, back up your RAYCHEM Supervisor database. (Refer to Section 14.2.1 in the RAYCHEM Supervisor Operations Manual (H57576) for instructions on the proper backup procedure.)

3.11.1 UNINSTALLING RAYCHEM SUPERVISOR MASTER SERVER

You may remove RAYCHEM Supervisor Master Server from your computer system by following these steps:

- 1. Click the START button, then Select Control Panel.
- 2. Double-Click Add/Remove Programs.
- 3. In the list of installed programs, select RAYCHEM Supervisor Master Server. Click on the Remove button.
- 4. Follow the instructions that appear on the screen.

🐞 Add or Rei	nove Programs			_ []]
5	Currently installed programs:	Show up <u>d</u> ates	Sort by: Name	•
C <u>h</u> ange or Remove	🚜 Microsoft .NET Framework 1.1			
Programs	🌄 Microsoft .NET Framework 4 Client Profile		Size	182.00MB
- 1	5 Microsoft .NET Framework 4 Extended		Size	46.04MB
Add <u>N</u> ew	📒 Microsoft SQL Server 2008		Size	578.00MB
Programs	📒 Microsoft SQL Server 2008 Browser		Size	7.94MB
5	🚦 Microsoft SQL Server 2008 Native Client		Size	4.57MB
Add/Remove	🚦 Microsoft SQL Server 2008 Setup Support Files		Size	33.26MB
<u>W</u> indows Components	🔀 Microsoft SQL Server Desktop Engine		Size	69.06MB
	📒 Microsoft SQL Server VSS Writer		Size	6.51MB
	🔀 Oracle VM VirtualBox Guest Additions 4.2.12		Size	3.66MB
Set Pr <u>o</u> gram Access and	🍓 Raychem Supervisor Client		Size	36.27MB
Defaults	🍓 Raychem Supervisor Master Server		Size	<u>4.91MB</u>
	Click here for support information.		Used	<u>rarely</u>
	To change this program or remove it from your computer, clic	k Change or Remove.	Change	Remove
	SAP Crystal Reports runtime engine for .NET Framework 4 (3)	2-bit)	Size	198.00MB
	🟉 Windows Internet Explorer 8		Size	4.23MB

Figure 3.11.1 Remove RAYCHEM Supervisor master server

3.11.2 UNINSTALLING RAYCHEM SUPERVISOR SLAVE SERVER

You may remove RAYCHEM Supervisor Slave Server from your computer system by following the following steps:

- 1. Click the START button, then Select Control Panel.
- 2. Double-Click Add/Remove Programs.
- In the list of installed programs, select RAYCHEM Supervisor Slave Server. Click on the Remove button.
- 4. Follow the instructions that appear on the screen.

🐻 Add or Ren	nove Programs			_ 🗆 ×
5	Currently installed programs:	Show up <u>d</u> ates	Sort by: Name	•
C <u>h</u> ange or Remove	🚜 Microsoft .NET Framework 1.1			
Programs	🌄 Microsoft .NET Framework 4 Client Profile		Size	182.00MB
- 1	5 Microsoft .NET Framework 4 Extended		Size	46.04MB
Add <u>N</u> ew	😽 Microsoft SQL Server Desktop Engine		Size	69.06MB
Programs	🛃 Oracle VM VirtualBox Guest Additions 4.2.12		Size	3.66MB
6	🍓 Raychem Supervisor Client		Size	36.27MB
Add/Remove	🍓 Raychem Supervisor Slave Server		Size	<u>3.98MB</u>
<u>W</u> indows Components	Click here for support information.		Used	<u>rarely</u>
	To change this program or remove it from your com	outer, click Change or Remove.	Change	Remove
Set Program	SAP Crystal Reports runtime engine for .NET Frame	work 4 (32-bit)	Size	198.00MB
Access and Defaults	🔗 Windows Internet Explorer 8		Size	4.23MB

Figure 3.11.2 Remove RAYCHEM Supervisor slave server

3.11.3 UNINSTALLING RAYCHEM SUPERVISOR CLIENT

You may remove RAYCHEM Supervisor Client from your computer system by following the following steps:

- 1. Click the START button, then Select Control Panel.
- 2. Double-Click Add/Remove Programs.
- 3. In the list of installed programs, select RAYCHEM Supervisor Client. Click on the Remove button.
- 4. Follow the instructions that appear on the screen.

I UF KE	nove Programs		_ 🗆
5	Currently installed programs:	Sort by: Name	•
nge or nove	縄 Microsoft .NET Framework 1.1		
grams	Signal Anticologies (International Anticologies) State (International Anticologies) St	Size	182.00ME
<u>.</u>	5 Microsoft .NET Framework 4 Extended	Size	46.04ME
) <u>V</u> ew	🗧 Microsoft SQL Server 2008	Size	578.00ME
ams	🚦 Microsoft SQL Server 2008 Browser	Size	7.94ME
1	Microsoft SQL Server 2008 Native Client	Size	4.57ME
	Microsoft SQL Server 2008 Setup Support Files	Size	33.26ME
ows nents	😥 Microsoft SQL Server Desktop Engine	Size	69.06MB
	Microsoft SQL Server VSS Writer	Size	6.51ME
	🕞 Oracle VM VirtualBox Guest Additions 4.2.12	Size	3.66MB
am Ind	🍓 Raychem Supervisor Client	Size	<u>36.27MB</u>
	Click here for support information.	Used	<u>rarely</u>
	To change this program or remove it from your computer, click Change or Remove.	Change	Remove
	🍓 Raychem Supervisor Master Server	Size	4.91ME
	SAP Crystal Reports runtime engine for .NET Framework 4 (32-bit)	Size	198.00ME
	A Windows Internet Explorer 8	Size	4.23ME



Please refer to Section 15 in the RAYCHEM Supervisor Operations Manual.

APPENDIX A - 780 SERIES/GCC-9000 CABLING

Refer to the 780 Series/GCC-9000 manual for an explanation regarding wiring of the HTC communications, alarm and relay ports. The communications between the master computer and the 780 Series/GCC-9000s may be accomplished using either RS-232 or RS-485, depending on the circumstances. If you are connecting multiple 780 Series/GCC-9000s to the RAYCHEM Supervisor software, you will need to use the RS-485 port and associated wiring to accomplish this.

A-1 RS-232 COMMUNICATIONS TO A 780 SERIES/GCC-9000

Communications to the 780 Series/GCC-9000 may be established via an RS-232 cable plugged into the 780 Series/GCC-9000's SIO#2 port and to one of the serial (COM) ports of your computer. The required cable wiring is shown below.

Personal computer 25-pin male to GCC RS-232C



Personal computer 9-pin male to GCC RS-232C



A-2 RS-485 COMMUNICATION TO A 780 SERIES/GCC-9000

The wiring between the master computer and a 780 Series/GCC-9000 using the RS-485 port is accomplished using either a 2-wire or a 4-wire connection and an RS-485/RS-232 converter plugged into the computer's serial (COM) port.

780 Series SIO1 Wiring Diagram (2-Wire RS-485)



The following chart shows typical distances that may be achieved using the RS-485 communications port. These distances are based on using a 4-wire, 26-AWG shielded twisted pair. Note that speed and distances will depend on actual operating conditions.

Speed	Distance	
1200 bps		4.00 miles (6.4 km)
2400 bps		3.00 miles (4.8 km)
4800 bps		2.30 miles (3.7 km)
9600 bps	1.70 miles (2.7 km)	

The RS-485 converter may be an internal card that plugs into one of your computers' empty slots, or an external device that connects to one of the existing serial ports via a cable. It is strongly recommended that you use an isolated-type interface to protect the computer from any voltage transients that may be introduced into the field wiring.

A-3 780 SERIES / GCC-9000 RS-485 JUMPER SETTINGS

Preparation

- 1. Power down the GCC and unplug its line cord.
- 2. Remove the four screws holding down the GCC's cover.
- 3. Identify the four jumpers on the drawing below.
- 4. Check to see if the existing jumper settings are acceptable.



Note: Static electricity can destroy electrical components! Ground one hand by touching the metal case prior to handling the jumpers.



For 2 Wire RS-485 Operation

- 1. Install jumpers E36 and E40 and use Tx+ and Tx- terminals to connect the RS-485 wiring.
- 2. Install jumper E35 for the termination resistor if this is the last (or furthest) GCC.

For 4 wire RS-485 Operation

- 1. Remove jumpers E36 and E40, if present, and use all four terminals Tx+, Tx-, Rx+, and Rx- to connect the RS-485 wiring.
- 2. Remove jumper E35 and install jumper E37 for the termination resistor if this is the last GCC on the RS-485 communications bus.

B-1 INSTALLATION ERRORS

Cannot install Master Server due to database error

- Ensure that the Microsoft SQL Server is properly installed and running on the computer where you are installing RAYCHEM Supervisor.
- · Verify that the Master Server name has been typed in correctly.
- If RAYCHEM Supervisor Master Server does not install, ensure that there is no MSSQL file in the folder C:\Program Files\Microsoft SQL Server. This may be left over from a previous installation and will prevent the installation from completing.

Install error 1604 encountered installing Crystal Reports Runtime Engine

• Try running the installation setup again. This might happen if the installation setup files are stored in a network drive instead of the local drive.

Unexpected Installation errors encountered

If there are unexpected errors encountered during the installation, check that the Windows Operating system meets the minimum software requirement needed to install RAYCHEM Supervisor. Upgrade to the latest version if possible.

B-2 COMMUNICATION ERRORS

Communication Failures

When RAYCHEM Supervisor is connected to GCCs and HTC-direct controllers using a 2-wire RS-485 configuration make sure that the Tx Delay setting for each GCC and HTC-direct controller is set to at least 0.06 seconds. This will ensure that the GCC or HTC-direct devices do not start to transmit a reply until RAYCHEM Supervisor has turned off its driver.

B-3 OTHER ERRORS

Some text does not display properly in the "Help About" screen

• If you are using McAfee Virus Scan software, you may have to disable the "Buffer Overflow Protection" option in the McAfee setup to eliminate this problem.

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